



Charles T. Drevna
President

American
Fuel & Petrochemical
Manufacturers

1667 K Street, NW
Suite 700
Washington, DC
20006

202.457.0480 office
202.552.8457 direct
202.457.0486 fax
Cdrevna@afpm.org

Via Electronic Mail: chris.hart@ntsb.gov

April 30, 2015

The Honorable Christopher A. Hart
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, D.C. 20594

RE: NTSB Recommendations R-15-14 through -17

Dear Chairman Hart:

The American Fuel & Petrochemical Manufacturers (AFPM) is writing to request a meeting to discuss the National Transportation Safety Board (NTSB) Safety Recommendations R-15-14 through -17 issued on April 3, 2015. AFPM is a national trade association of more than 400 petroleum refiners and petrochemical manufacturers throughout the United States. AFPM members operate 120 U.S. refineries comprising more than 95 percent of U.S. refining capacity. AFPM members own or lease tens of thousands of tank cars and are directly affected by these and other NTSB safety recommendations.

AFPM members share a deep commitment to safety and strive for opportunities to proactively integrate safety into their operations and management culture. The refining and petrochemical manufacturing industries are committed to protecting the health and safety of our workers, our contractors, our neighbors, our customers, and the communities through which crude oil and ethanol are shipped. AFPM supports a holistic, preventative approach to improving the safe transportation of crude oil by rail and other modes. AFPM and its members work diligently to maintain a safe working environment in our refineries, with a goal of zero incidents. This commitment applies to the safe transportation of crude oil and other feedstocks to refineries, and of refined products to our members' customers.

As part of a longstanding commitment to safety, AFPM members have been proponents of AAR Tank Car Committee's proposed Petition P-1577 recommendations, which were introduced in 2011 as CPC-1232 standard tank cars. The CPC-1232 standards were developed with the collaboration of railroads, rail supply industries, U.S. and Canadian transportation regulators, and shippers, including AFPM member companies. These standards specifically sought to mitigate the risks of rail transportation of flammable liquids. AFPM members made an enormous capital investment, now estimated at more than \$4 billion, in tank cars meeting the updated CPC-1232 standard because of their good-faith expectation that the standard would soon be adopted as law by the U.S. government. The commitment to safer transportation by the refining industry and



others has led to an 18-month backlog in orders for enhanced tank cars as demand has exceeded the capacity to produce these cars.

A holistic approach to the safe transportation of crude-by-rail should emphasize three key factors: prevention, mitigation and response. You recognized the NTSB emphasis on the 3-prong effort in the NTSB written statement at the April 15, 2015 House Transportation and Infrastructure hearing, and by providing the admonishment in your own testimony that we “need to keep the cars on the tracks.” NTSB is uniquely positioned to hold the Federal Railroad Administration (FRA), the Pipeline and Hazardous Materials Administration (PHMSA) and the railroads accountable for not just words, but urgently undertaking every available action to fulfill the shared primary objective of prevention.

Lack of Focus on Prevention

The NTSB Safety Recommendations R-15-14 through -17 issued on April 3, 2015 focus exclusively on mitigating tank car risks. We are concerned that the current NTSB recommendations focus exclusively on incident mitigation and should place further emphasis on incident prevention, most especially derailment events which are the single greatest cause of tank car incidents leading to breaches of the tanks and release of lading. As you are aware, rail car standards only address one element of rail safety: mitigation after derailment. A more effective approach must address the lead cause of rail accidents: track integrity.

Nothing in the August 1, 2014 PHMSA tank car and rail operations proposal required railroads to buy one more piece of track inspection equipment, hire one more qualified inspector or inspect one more mile of track. FRA’s own data shows that there were over 1,100 Class 1 derailments in 2014, averaging more than three each day; the number one cause cited has been poor track conditions. Any effort to enhance rail safety must begin with addressing track integrity and human factors which, combined, account for the majority of derailments. Investment in accident prevention would result in the greatest reduction in the risk of rail incidents. While more robust tank cars may mitigate some of the consequences of rail incidents in the event of a derailment, keeping the trains on the tracks is the only way to ensure that crude and all other hazardous materials will be transported in the safest possible manner.

In the past, the NTSB has been at the vanguard of track safety recommendations to prevent track failures and the derailments they cause. Unfortunately, with resistance and weak justifications from both the railroads and FRA, these recommendations have frequently been rejected. NTSB was correct in concluding that internal rail flaws, such as cracks, fissures and splits in a rail, “are the predominant factor that determines the risk of rail failure . . .” (79 *Federal Register* (“FR”) 4237). Several older NTSB recommendations focused on this leading cause of train derailments:

- NTSB Recommendation R-08-10: FRA should require railroads to develop rail maintenance and inspection programs based on damage-tolerance principles taking into



account tonnage, track geometry, rail surface conditions, rail head wear, rail steel specifications, track support, residual stress on the rail, rail defect growth rate, and temperature differentials. The recommendation also suggests that the railroad demonstrate how the program will mitigate the track issue before being approved by FRA. (79 FR 4239).

- NTSB Recommendation R-08-11: Require railroads to accurately measure rail head wear by using approved methods. Proper measurement ensures that the head does not affect accuracy of other measures. (79 FR 4239).

Unfortunately, both the railroads and FRA have rejected these recommendations. These NTSB recommendations aimed at track integrity, one of the primary causes of rail accidents, have not been addressed. AFPM would like to know if NTSB believes they are still relevant. The association's members would also like to know what other recommendations NTSB may be working on in relation to addressing the root cause of accidents, in addition to its current focus surrounding mitigation in the event of an accident.

Focus on Track Safety and Human Error

Rather than focusing solely on the mitigation of the impacts from train accidents, including derailments, NTSB's recommendations should focus on accident prevention by promoting track integrity and reducing human error. To that end, AFPM recommends that NTSB urge the Department of Transportation (DOT) to revisit the Track Safety Standard Rule. See Track Safety Standards; Improving Rail Integrity, 79 FR 4234 (Jan. 24, 2014) (Track Rule). The Track Rule codified existing railroad industry practices on track maintenance and "internal" rail inspections. Internal rail flaws are cracks, fissures and splits in a rail. The development of these internal flaws is the "predominant factor that determines the risk of rail failure ..." 79 FR at 4237. The primary method for internal inspections is ultrasonic testing where sound waves are directed at the rails. The reflected signal is interpreted by a qualified operator to detect internal flaws. *Id.* at 4237, 4250.

Rather than enhancing safety, the Track Rule ultimately focused on reducing the railroads' operating costs. The rule added no new obligation on railroads to purchase additional ultrasonic testing equipment, hire more qualified inspectors, increase track inspection frequency or make other investments in detecting track defects. The government admitted as much, stating that the rule did not impose "any material costs on railroads." 79 FR 4235. The benefits of the rule did not include reducing derailments or other accidents. Instead, FRA touted the "main benefit" of the Track Rule as saving railroads about \$8,400 per day because they would be granted additional time to verify internal rail defects.

NTSB originally asked FRA to do more. In comments filed on the proposed Track Rule, NTSB pointed out that the rulemaking was intended to implement Section 403 of the Rail Safety Improvement Act ("RSIA") of 2008, Pub. L. 110-432, Div. A. The RSIA required DOT to



conduct a safety study on tracks and issue a rule based on the study. DOT conducted the safety study; NTSB's comments however, demonstrate that the proposed rule failed to implement the study findings and thus the intent of the RISA. *See* Comments from Deborah A.P. Hersman, Chairman, NTSB, to Docket FRA-2011-0058 (RIN 2130-AC28) (Dec. 18, 2012). Most of NTSB's safety concerns about the rule were dismissed by FRA in the final Track Rule.

The NTSB Retrofit Schedule is Infeasible

The retrofit schedule for existing tank cars to meet new standards that the NTSB recommended is far more aggressive than either the Canadian or the U.S. proposals, and fails to recognize the incapacity of tank shops to meet it. Given the fact that the current order backlog for new cars is now more than 18 months and repair shop capacity is already constrained, retrofitting most or all of the tank car fleet in five years is infeasible. The Railway Supply Institute (RSI), representing most or all of the tank car manufacturers and repair shops, estimates that following a 6-8 month period needed for shops to increase capacity to perform the specific retrofits contemplated, a best case scenario for the potential completion of around 6,500 retrofits annually.

This means that after 5 years under the best case only 30,000 to 35,000 retrofits will be completed, leaving more than 50,000 cars out of service, either still needing retrofits or scrapped. This may present serious tank car shortages for crude, ethanol and other flammable liquids, potentially causing crude supply disruptions to refineries in many parts of the country. RSI commissioned a report completed by the Brattle Group that concluded that even under the proposed PHMSA schedule, one that is less aggressive than the NTSB schedule, tank car shortages could lead to modal shifts resulting in crude being transported by trucks over highways, and concurrently shifting increased risk to the highway transportation system. In addition, the Brattle Group report also listed the following concerns with PHMSA's overly aggressive retrofit schedule:

- Decreases in crude oil production that would likely translate to higher prices at the pump as costs are passed on to consumers.
- Requirements under the Renewable Fuel Standard (RFS) to blend gasoline with ethanol, a reduction in ethanol production may also impact the availability and price of gasoline.
- Constraints on shop capacity for work required in support of other cars, potentially resulting in shortages for transport of other commodities.

This overly aggressive retrofit schedule sets an aspirational goal for completion, but in fact it may create safety and economic risks for all Americans. Given these concerns, AFPM believes that the NTSB should reconsider its recommended 5-year retrofit schedule.



Concerns with the Federal Railroad Administration's Risk Reduction Program

On February 27, 2015, FRA proposed a new Risk Reduction Program (RRP), designed to be a “comprehensive, system-oriented approach to safety that determines an operation’s level of risk by identifying and analyzing applicable hazards and involves developing plans to mitigate, if not eliminate that risk.” <https://www.federalregister.gov/articles/2015/02/27/2015-03268/risk-reduction-program>.

The NTSB should take notice that the RRP represents, in the FRA’s own words, a “streamlined version” of a safety management system and does not go far enough to mitigate the risk of train derailments. FRA’s proposal excludes from the RRP a number of program and plan components that are foundational to an effective safety management system. For example:

- FRA is not proposing to include a requirement for a description of the railroad management and organizational structure (including charts or other visual representations), but instead asks for a less specific system description.
- The RRP plan is not required to contain a description of the processes and procedures used for maintenance and repair of infrastructure and equipment, rules compliance and procedures review, workplace safety, workplace safety assurance, or public safety outreach.
- FRA is also not proposing to require an RRP to establish processes ensuring that safety concerns are considered and addressed during the procurement process.
- As additional examples, a full safety management system would also require: (1) development and implementation of processes to manage emergencies; (2) processes and procedures for the railroad to manage changes that have the potential to effect railroad safety; (3) processes and permissions for making configuration changes to the railroad; and (4) safety certification prior to initiation of operations or implementation of major projects.

Congress directed FRA to conduct a study to determine if it was in the public interest to withhold certain information, including the railroad’s assessment of its safety risks and its statement of mitigation measures, from discovery and admission into evidence in proceedings for damages involving personal injury and wrongful death.

[T]he study concluded that it was in the public interest to withhold this type of information from these types of proceedings. See “Study of Existing Legal Protections for Safety-Related Information and Analysis of Considerations for and Against Protecting Railroad Safety Risk Reduction Program Information,” FRA, docket no. FRA–2011–0025–0031, Oct. 21, 2011.



The NTSB must read this legal memorandum and determine if the rationalization does not defy logic to remove the accountability and transparency under which most transportation industries (pipelines, aviation, and motor carriers) must continuously evaluate their system integrity and operations. We are concerned that rulemakings like this are not realizing their full potential on prevention and that consequence mitigation seems to be the only factor that DOT is emphasizing in efforts to improve crude-by-rail safety.¹

Conclusions

NTSB has traditionally pursued a holistic approach to rail safety, but the emphasis on tank car modifications through an overly aggressive and infeasible retrofit schedule creates the incorrect perception that tanks car improvements are the magic remedy that will singularly improve crude-by-rail safety. Preventing derailments in the first place and focusing on the root causes of accidents still provides the greatest tool in enhancing crude-by-rail safety. When making safety recommendations for air transport, the NTSB doesn't recommend that the FAA require indestructible planes. Instead, the focus is on preventing errors like mid-air collisions, runway incursions and pilot error.

AFPM appreciates the opportunity to comment on the NTSB recommendations and would like to schedule a meeting at your earliest convenience to discuss these matters and respond to any questions you may have regarding our response. Please contact David Friedman of my staff at (202) 552-8461 or dfriedman@afpm.org if you need any additional information on this matter.

Sincerely,

Charles T. Drevna

¹ NTSB participated in the Canadian Transportation Safety Board (TSB) investigation of Lac Megantic. In the Railway Investigation Report, R13D0054, TSB describes the Montreal, Maine & Atlantic Railway's (MMA) poor implementation of the required Safety Management System (SMS) and risk assessment of the railroad's SMS which "was lacking key processes, and other processes were not being effectively used. . . . As a result, MMA did not have a fully functioning SMS to effectively manage risk." P. 123. <http://www.tsb.gc.ca/eng/enquetes-investigations/rail/2013/r13d0054/r13d0054.asp>