



U.S. Department  
of Transportation

Administrator

1200 New Jersey Avenue SE  
Washington, DC 20590

**Pipeline and Hazardous  
Materials Safety  
Administration**

December 22, 2015

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

Dear Chairman Hart:

This letter provides an update regarding Safety Recommendation H-98-27. The National Transportation Safety Board (NTSB) issued this recommendation after the investigation of a cargo tank motor vehicle (CTMV) incident in Yonkers, NY. This investigation identified a safety concern regarding the carriage of hazardous material in the external piping on a cargo tank (wetlines). A summary of the Pipeline and Hazardous Materials Safety Administration's (PHMSA) actions and current position is provided below.

H-98-27

*Prohibit the carrying of hazardous materials in external piping of cargo tanks, such as loading lines, that may be vulnerable to failure in an accident.*

PHMSA concurs in part based on the current prohibition on the carrying of certain liquid hazardous materials in unprotected external piping on DOT specification cargo tanks under 49 CFR 173.33(e). On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act." Among the many provisions is a mandate for PHMSA to withdraw our January 27, 2011, notice of proposed rulemaking<sup>1</sup> on flammable liquid wetlines no later than thirty days from the date of enactment of the FAST Act. Furthermore, PHMSA notes that based on the history of this issue and analysis completed, we are not able to identify a cost-beneficial regulatory approach for addressing the risk associated with the transportation of flammable liquids in unprotected wetlines. The number of CTMVs subject to the costs of regulatory action and the lack of fatal incidents in comparison to the frequency of movements by these CTMVs does not justify a regulatory approach. After thorough and careful safety consideration and analysis, PHMSA will withdraw our January 27, 2011, notice of proposed rulemaking and terminate the rulemaking proceeding. PHMSA, however, will continue to monitor incident data related to potential flammable liquid wetlines accidents, educate the public on the risks, consider non-regulatory initiatives, and engage other Departmental agencies (e.g., the National Highway Transportation Safety Administration) to improve the safety of transporting flammable liquid in unprotected wetlines on CTMVs.

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<sup>1</sup> "Safety Requirements for External Product Piping on Cargo Tanks Transporting Flammable Liquids," HM-213D; 76 FR 4847 (Jan. 27, 2011).

PHMSA and its predecessor agency, the Research and Special Programs Administration (RSPA), have long viewed hazardous material in unprotected piping as a safety concern and took steps to address this concern prior to NTSB's recommendation.<sup>2</sup> PHMSA prohibits liquid hazardous materials other than flammable liquids in unprotected external piping on DOT-specification CTMVs. However, we continue to be confronted by the complicated nature of the process of transferring and transporting flammable liquids, particularly petroleum fuels, and the cost impacts of regulating this process without evidence of significant benefits to safety.

Efforts to affect a regulatory change date back to 2001. Following issuance of this Safety Recommendation, RSPA issued a notice of proposed rulemaking<sup>3</sup> in December 2004 that would prohibit flammable liquids in unprotected wetlines on DOT-specification CTMVs. However, in June of 2006, PHMSA withdrew the proposal because we had not identified a cost-effective regulatory approach to address the risk of flammable liquid wetlines.<sup>4</sup> Concurrent with the withdrawal, PHMSA developed outreach material to educate the public about the risks of unprotected flammable liquid wetlines.<sup>5</sup> PHMSA also committed to continue to collect incident data to aid in addressing the issue further, if warranted.

In January 2011, PHMSA again attempted a regulatory approach to address this issue. Commenters again raised concerns over implementation costs and the potential increase in fuel prices, namely gasoline, that could result. More specifically, commenters raised concerns that regulation could introduce new costs that would have a detrimental economic impact on carriers of petroleum fuels. Commenters also indicated that government oversight, infrastructure, and the processes of transporting petroleum fuels are firmly entrenched, making it complicated to implement a safety regulation without some associated cost. For instance, for gasoline, which is bottom-loaded to allow for compliance with Environmental Protection Agency air quality standards, it is not as simple as draining the piping after completion of a loading operation. The process involves metering and often introducing specialized fuel additives—both of which are irreversible. Multiple impacts of draining material must be considered—e.g., ownership, disposal, storage (onsite or off), offsite transport, government oversight, and environmental impacts. There are other alternatives with numerous other considerations (that RSPA analyzed in part for the 2004 notice). PHMSA adjusted its preliminary economic analysis to account for the comments received and found that prohibiting flammable liquids in unprotected wetlines on DOT-specification CTMVs would not be cost-effective nor would it substantially reduce fatalities.

In July 2012, Congress enacted the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 temporarily prohibited PHMSA from issuing a final rule until an examination of the risks and alternatives for the safe transportation of flammable liquids was

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<sup>2</sup> See discussions in 54 FR 24982 (June 12, 1989) at 24987 and 55 FR 37028 (Sept. 7, 1990) at 37029.

<sup>3</sup> This notice of proposed rulemaking considered various alternatives, from design changes to increased visibility to purging systems. HM-213B; 69 FR 78375 (Dec. 30, 2004).

<sup>4</sup> HM-213B; 71 FR 32909 (June 7, 2006).

<sup>5</sup> In partnership with the National Tank Truck Carriers, Inc., the National Association of State Fire Marshals, and the International Association of Fire Chiefs, on September 1, 2006, PHMSA issued the following guidance: [https://hazmatonline.phmsa.dot.gov/services/publication\\_documents/wetlines\\_FINAL.pdf](https://hazmatonline.phmsa.dot.gov/services/publication_documents/wetlines_FINAL.pdf).

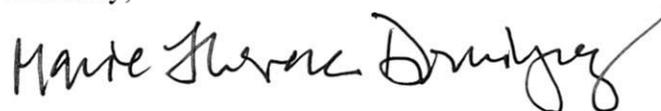
completed by the Government Accountability Office (GAO), barring an imminent safety hazard. As a result, GAO initiated an audit under GAO-13-721.<sup>6</sup> GAO examined PHMSA's wetlines incident data from 1999 to 2011, reviewed PHMSA's regulatory cost-benefit analyses, and interviewed agency officials and industry and safety stakeholders. On September 11, 2013, GAO issued a final report that recommended PHMSA: (1) revise incident reporting requirements to better capture wetlines incidents and their consequences; (2) address limitations with the accuracy and completeness of information used to assess the impact of a wetlines incident, and (3) strengthen its regulatory evaluation to better address the uncertainty of underlying cost and benefits.

Based on GAO's final report, PHMSA conducted further economic analysis to account for variability in benefits and costs. PHMSA examined five separate scenarios for expected benefits, which varied the fatalities, injuries, property, other damages, and the timeframe of the analysis to address data uncertainty as raised by the GAO; and accounted for two variations in the average costs of equipment installed to address the risk. Of the five separate scenarios analyzed, only one scenario provided marginally positive net benefits—the highest benefit scenario that accounted for the added benefits of the Yonkers, NY incident and the low average cost option of installed equipment.<sup>7</sup>

Avoided fatalities would comprise the majority of the benefits associated with prohibiting or protecting wetlines. Since the Yonkers, NY, incident, PHMSA has identified three new fatal incidents attributed to the flammable liquid in the piping on a CTMV. These incidents were a direct result of a motor vehicle violation (e.g., reckless driving). The incident data shows that in a motor vehicle collision with a CTMV with unprotected flammable liquid wetlines, the cause of death or injury is more likely blunt force trauma from the impact of the accident than the consequences of a flammable liquid release.

PHMSA will continue to work to protect people and the environment from the risks of flammable liquid wetlines transportation through non-regulatory approaches including public education and engaging other Departmental agencies to improve the safety of transporting flammable liquid in unprotected wetlines on CTMVs. PHMSA will also continue to closely monitor incident reporting information for wetlines incidents in consideration of any future possible actions. If we can be of further assistance or answer any additional questions, please do not hesitate to contact Stephen Domotor, Chief Safety Officer at 202-366-7530 or at Stephen.Domotor@dot.gov.

Sincerely,



Marie Therese Dominguez

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<sup>6</sup> Information is available at the following URL: <http://www.gao.gov/products/GAO-13-721>

<sup>7</sup> PHMSA notes that commenters continue to question whether the fatality in the Yonkers, NY incident can be attributed to wetlines rather than a cargo tank breach and whether it should be used as supporting data in the analysis.