National Transportation Safety Board



Washington, D.C. 20594

AUG - 2 2012

The Honorable Cynthia L. Quarterman Administrator Pipeline and Hazardous Materials Safety Administration Washington, DC 20590

Dear Administrator Quarterman:

Thank you for your letter, dated May 30, 2012, to the National Transportation Safety Board (NTSB), updating the status of actions to address Safety Recommendations R-12-5 through -8, stated below. The NTSB issued these recommendations to the Pipeline and Hazardous Materials Safety Administration (PHMSA) on March 2, 2012, as a result of our investigation of the June 19, 2009, freight train derailment in Cherry Valley, Illinois. This letter also discusses Safety Recommendations R-07-2 and -4.

R-12-5

Require that all newly manufactured and existing general service tank cars authorized for transportation of denatured fuel ethanol and crude oil in Packing Groups I and II have enhanced tank head and shell puncture resistance systems and top fittings protection that exceeds existing design requirements for [U.S. Department of Transportation] DOT-111 tank cars.

The NTSB notes that PHMSA accepted the Association of American Railroads' (AAR) Petition P-1577 and has initiated an advance notice of proposed rulemaking to solicit public comment on the petition, as well as several other petitions dealing with rail tank car issues. We also note that rail stakeholders have requested that PHMSA address rail tank cars in alcohol and crude oil service separately, because of the large number of rail tank cars that would be impacted by a rulemaking, and to facilitate a timely rulemaking process. Because PHMSA has initiated action to address Safety Recommendation R-12-5, it is classified "Open—Acceptable Response" pending the completion of rulemaking that satisfies the recommendation. The NTSB will monitor PHMSA's regulatory action on this issue and provide comments as appropriate.

R-12-6

Require that all bottom outlet valves used on newly manufactured and existing non-pressure tank cars are designed to remain closed during accidents in which the valve and operating handle are subjected to impact forces.

The NTSB understands that PHMSA and the Federal Railroad Administration (FRA) are working on the AAR's task force T10.5 Bottom Outlet Operating Mechanisms, which is addressing the following three action items aimed at preventing loss of lading from a bottom outlet valve (BOV) in both accident and non-accident conditions:

- Evaluate design requirements for a shear plane for connection to the BOV.
- Review the strength requirements of the skid protection structure.
- Identify and evaluate design requirements for a BOV operating mechanism that would prevent an unintended release.

Accordingly, Safety Recommendation R-12-6 is classified "Open—Acceptable Response" pending completion of the task force's work and implementation of the recommended requirement.

R-12-7

Require that all newly manufactured and existing tank cars authorized for transportation of hazardous materials have center sill or draft sill attachment designs that conform to the revised Association of American Railroads' design requirements adopted as a result of Safety Recommendation R-12-9.

The NTSB understands that PHMSA, the FRA, and the failed tank car manufacturer are sponsoring research at the DOT's Volpe Center on the failed tank car sill design to determine the magnitude and direction of the forces required to reproduce the accident failure and the boundary conditions, such as pinning of the head, at the time of failure. Other tank car designs will also be evaluated to identify deficiencies. Based on the results of this research, PHMSA, the FRA, and the tank car manufacturer will identify and evaluate design modifications to prevent such a failure from recurring.

PHMSA indicated that it would provide periodic updates on the progress of the research project and any decisions it makes regarding the establishment of new sill design requirements in the hazardous material regulations. It also plans to update the NTSB about the incorporation of any design requirements adopted by the AAR in response to Safety Recommendation R-12-9. Accordingly, Safety Recommendation R-12-7 is classified "Open—Acceptable Response." Please note that, in order for us to close this recommendation in an acceptable status, PHMSA will need to require design modifications to tank cars that will prevent a recurrence of the design problem involved in the Cherry Valley accident.

R-12-8

Inform pipeline operators about the circumstances of the accident and advise them of the need to inspect pipeline facilities after notification of accidents occurring in railroad rights-of-way.

Safety Recommendation R-12-8 is classified "Open—Acceptable Response" pending publication of the planned advisory bulletin containing the requested information.

Safety Recommendations R-07-2 and -4, stated below, were issued to the FRA and PHMSA, respectively, on April 25, 2007, as a result of the NTSB's investigation of the collision of two Canadian Northern freight trains near Anding, Mississippi, on July 10, 2005; these recommendations were reiterated in the Cherry Valley accident investigation report.

R-07-2

Assist the Pipeline and Hazardous Materials Safety Administration in developing regulations 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.

R-07-4

With the assistance of the Federal Railroad Administration, require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.

On May 15, 2012, the FRA informed the NTSB that it had met with the AAR and the American Short Line and Regional Railroad Association (ASLRRA) to provide an overview of Safety Recommendation R-07-2 and its plans to address this recommendation. The FRA further informed us that it had discussed with PHMSA the application of HM-ACCESS (Hazardous Materials—Automated Cargo Communications for Efficient and Safe Shipments). We note that, on May 2, 2012, the FRA met with the AAR, the ASLRRA, and PHMSA to discuss the available systems and to identify the systemic gaps and measures to close those gaps.

Although PHMSA did not address Safety Recommendation R-07-4 in its May 30, 2012, letter, we are encouraged that FRA and PHMSA appear to be making some progress in addressing this issue. In our most recent exchanges of correspondence with PHMSA regarding this recommendation (enclosed), PHMSA indicated that it was "evaluating the emergency response issues raised in the recommendation and the Federal, State, and local government and industry programs intended to address those issues." However, this information is several years old, and we are eager to learn of specific plans that PHMSA has made or actions it has taken since January 2008 to address Safety Recommendation R-07-4. In the meantime, pending our receipt of an update regarding action PHMSA has taken or intends to take to address this recommendation, it remains classified "Open—Acceptable Response."

We would appreciate receiving updates periodically as progress continues to address Safety Recommendations R-12-5 through -8 and R-07-4. We encourage you to submit such updates electronically at the following e-mail address: correspondence@ntsb.gov. If a response includes attachments that exceed 5 megabytes, please e-mail us at the same address for instructions.

To avoid confusion, please do not submit both an electronic copy and a hard copy of the same response.

Sincerely,

Deborah A.P. Hersman Chairman

Enclosures:

- 1. PHMSA letter dated August 9, 2007
- 2. PHMSA letter dated January 22, 2008
- 3. NTSB letter dated March 17, 2008

cc: Ms. Linda Lawson, Director Office of Safety, Energy, and Environment Office of Transportation Policy

MC 2070418 REC'D AUG 2 0 2007 Not 7870A



U.S. Department
of Transportation
Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Ave., S.E. Washington, DC 20590

AUG - 9 2007

The Honorable Mark V. Rosenker Chairman National Transportation Safety Board 490 L'Enfant Plaza, SW Washington, DC 20594

Dear Chairman Rosenker:

This letter is an initial response to your letter of April 25, 2007 concerning Safety Recommendations R-07-4 and R-07-5. These recommendations were issued following the National Transportation Safety Board's (NTSB) investigation of a rail incident on July 10, 2005, in Anding, Mississippi. In the incident, the collision resulted in the derailment of 6 locomotives and 17 rail cars. Approximately 15,000 gallons of diesel fuel were released from the locomotives and resulted in a fire that burned for 15 hours and resulted in the deaths of four train crewmembers. The recommendations state:

R-07-4

With the assistance of the Federal Railroad Administration (FRA), require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.

R-07-5

Require and verify that States and their communities that receive funds through the Hazardous Materials Emergency Preparedness grant program conduct training exercises and drills with the joint participation of railroads and other transporters of hazardous materials operating within their jurisdictions as a means of evaluating State, regional, and local emergency hazardous materials response plans.

We share your view that effective emergency response depends on thorough planning and training in advance of an incident and accurate, real-time information during an incident. We are currently evaluating the emergency response issues discussed in your letter and federal, state, and local government and industry programs intended to address those issues. We are considering alternative strategies for enhancing emergency response planning and training efforts, including more targeted use of the HMEP grant program funds. We are also examining ways to improve the accuracy of information available to emergency responders at the scene of an accident and the time necessary to provide such information. Once this evaluation is

complete, we will provide you with a detailed response to the recommendations and our plans for addressing the issues you have highlighted.

We request that you classify recommendation R-07-4 and R-07-5 as "Open – Acceptable Action." We thank you for consideration of our request.

If you have any questions, please contact me at (202) 366-4433.

Stoogy I Gorand

Sincerely,

Assistant Administrator/Chief Safety Officer



National Transportation Safety Board Advocacy Travel Request Form

Date of Request		Requesting Office I	Routing Symbol	•	Organizational Code of Staff/Traveler		
07/16/12		MD-3		MD-3	MD-3		
Advocacy speech on open safety recommendations at the AASHTO Technical Committee on Roadside Safety (TCRS) annual meeting.							
Issue Area(s) and Recommendation Number(s) (if known)							
Roadside barriers recommendations currently in "open" status from various reports: H-04-17, H-05-31, H-05-32, H-06-13, H-11-31, H-11-32, H-11-33, H-12-25, H-12-26, H-12-27							
Date(s) of Travel		Location		Type of T	Type of Trip		
8/1/12 through 8/3/12		Irvine, CA		Speech			
Staff/Traveler	Role of Staff/Tra	Role of Staff/Traveler					
Paula Sind-Prunier			Speaker				
Accompanied by Member							
N/A							
Bill Number(s) (if known)							
N/A							
Estimated Travel Cost	Registration Fee (If applicable)		Mileage (for local travel)		Mkey		
\$1,000.00	\$0.00		0				
AASHTO has requested an NTSB speaker to discuss these 10 open recommendations on roadside barriers. The TCRS is the group within AASHTO responsible for the technical work necessary to implement the recommendations and this meeting is an excellent opportunity to work with them to clarify the intent of our recommendations and steer them in a positive direction. Ms. Sind-Prunier would fly out on 8/1, attend the Committee meeting for the speech and follow-up on 8/2, and fly home on 8/3.							
Below For Administrative Use Only							
Accounting Code		Actual Cost					
Division Approval by			Date	П Ар	proved	☐ Denied	
Office Approval by			Date	П Ар	proved	Denled	
SRC Advocacy Approval by			Date	Ap	proved	Denled	



U.S. Department
of Transportation
Pipeline and Hazardous
Materials Safety
Administration

JAN 2 2 2008

The Honorable Mark V. Rosenker Chairman National Transportation Safety Board 490 L'Enfant Plaza, SW Washington, DC 20594

Dear Chairman Rosenker:

This letter is a follow-up to our correspondence on August 9, concerning Safety Recommendations R-07-4 and R-07-5 issued to the Pipeline and Hazardous Materials Safety Administration (PHMSA). These recommendations were issued following the National Transportation Safety Board's (NTSB) investigation of a rail incident on July 10, 2005, in Anding, Mississippi. The head-on collision of two trains resulted in the derailment of 6 locomotives and 17 rail cars. Seven residue tank cars containing hazardous materials were among the cars that derailed. Approximately 15,000 gallons of diesel fuel were released from the locomotives and resulted in a fire that burned for 15 hours. Two crewmembers were on each train; all four were killed. The recommendations state:

R-07-4 are some rose from page to be a soft not such as the

With the assistance of the Federal Railroad Administration (FRA), require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.

inserfunding will attend a fining it in the destination of the first of the contract of the first of the contract of the contr

We agree that timely and accurate information concerning the identity and locations of all hazardous materials on a train is critical to effective emergency response. The Hazardous Materials Regulations (HMR) require railroads to maintain hazardous materials information on-board trains reflecting the position of cars in the train, and hazard information regarding the commodities transported in specific rail cars.

In response to several recent accidents, FRA approached the Association of American Railroads (AAR) to ask for its assistance in developing additional strategies and mechanisms to ensure that detailed and specific hazardous materials information, including the position of cars in the train, is readily available to emergency responders even when crew members are disabled or otherwise unable to contact responders at the scene. FRA conducted two meetings with AAR, various railroads, and emergency response organizations to discuss enhancements to the emergency response system that would ensure emergency responders have access to necessary information during accidents.

REC D JAN 2 8 2008 PC 30500500500 1200 New Jersey Ave., S.E. Washington, DC 20590 As a result of these meetings and based on a recommendation from FRA, in March 2005, AAR amended its Recommended Operating Practices Circular No. OT-55 G to establish procedures for rail carriers to provide local emergency response agencies with a ranked listing of the top 25 hazardous materials transported by rail through their communities. This information assists emergency responders to plan and train for specific chemical releases.

In addition, in July 2005, CSX Transportation (CSX) and CHEMTREC, the chemical industry's 24-hour emergency response hotline, initiated a pilot project to test improvements to the emergency response communication system. The pilot project allows CHEMTREC to immediately access specific train information, including hazardous materials documentation, from CSX's computer system. The system enables emergency responders to obtain virtually real-time information, either verbally or via electronic means, almost immediately after receiving notification of an incident or accident. The system relies in part on train position information on locomotives equipped with Global Positioning System (GPS) receivers.

In December 2006, CHEMTREC implemented a second pilot project to evaluate the utility for emergency response of Railinc Corporation's FreightscopeTM service, which provides a web-based, interactive dashboard of near-real-time rail shipment location information for North America. The FreightscopeTM system improved CHEMTREC's ability to provide real-time hazardous materials information about shipments on short line and regional railroads.

Also in 2006, Dow Chemical Company and CHEMTREC began a demonstration project intended to improve the visibility of rail shipments of materials that are poisonous by inhalation (PIH) materials. Dow has equipped about 800 tank cars used to transport PIH materials with GPS hardware and sensors. The sensors are designed to monitor changes to the condition of the dome on the tank car, chemical leaks, and car accelerations and to generate an alert when the sensor is triggered. The alert is sent to CHEMTREC, which then contacts the rail carrier or customer to address the condition identified by the alert.

FRA and PHMSA will continue to monitor the results of these pilot projects and will consider ways to encourage more widespread use of the tested technologies by railroads and emergency response agencies.

In addition to the emergency response demonstration projects, FRA and PHMSA are also examining ways to improve the accident survivability of rail tank cars used to transport PIH materials. We are considering both tank car design and operational factors that affect rail tank car safety and crashworthiness. We expect to publish a notice of proposed rulemaking early in 2008.

R-07-5

Require and verify that States and their communities that receive funds through the Hazardous Materials Emergency Preparedness grant program conduct training exercises and drills with the joint participation of railroads and other transporters of hazardous materials operating within their jurisdictions as a means of evaluating State, regional, and local emergency hazardous materials response plans.

PHMSA's Hazardous Materials Emergency Preparedness (HMEP) grants program provides Federal financial and technical assistance to States, Territories and Indian tribes to "develop, improve, and carry out emergency plans" within the National Response System and the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA, Title III), 42 U.S.C. 11001 et seq. The HMEP grants program is funded by registration fees collected from persons who offer for transportation or transport certain hazardous materials in intrastate, interstate, or foreign commerce. Registration fees fund training and planning grants, monitoring and technical assistance, publication and distribution of the Emergency Response Guidebook (ERG), curriculum development, and staff costs to administer the program.

The planning grants are to be used for: 1) developing, improving, and implementing emergency plans under Title III to include conducting exercises and drills; 2) performing commodity flow studies; and 3) determining the need for regional hazardous material response. Training grants are to be used for training public sector employees to respond safely and efficiently to accidents and incidents involving the transportation of hazardous materials. The HMEP grants program provides grantees considerable flexibility in choosing eligible funding activities, and in reporting their planning, training, and grant use data. This flexibility helps grantees focus on planning and training activities best suited to their needs.

Grantees conducted 1,170 exercises using HMEP grant funds in fiscal year 2006. HMEP grant funds have been used to help fund emergency responders attendance at a Transportation Community Awareness and Emergency Response (TRANSCAER) whistle stop tour and safety train activities in Nebraska in fiscal year 2007. TRANSCAER is a voluntary national outreach effort sponsored by several industry trade associations that focuses on assisting communities prepare for and respond to a possible hazardous material transportation incident. The TRANSCAER whistle stop training tour in Nebraska focused on the production, packaging and shipping of ethanol and provided hands-on training using actual rail and motor carrier equipment. Next year, HMEP grant funds will be used to fund similar activity in Iowa.

In addition, PHMSA staff has participated, and continues to actively participate in TRANCAER program activities nationally. We also provide training and outreach materials for this important outreach initiative. We are exploring additional areas for cooperation. For example, we believe that certain renewable fuels present unique emergency response problems that could be addressed through specialized training and drills. PHMSA continues its close coordination with the Renewable Fuels Association to ensure emergency problems are identified and resolved. PHMSA is also working with the International Association of Fire Chiefs' Hazmat Committee to further explore methods to communicate hazards and identify exercise opportunities.

In response to NTSB recommendations as well as our efforts to better align grantee's performance with our hazardous materials performance goals, PHMSA plans to review a sample of drills and exercises to determine their effectiveness as means of evaluating State, regional, and local emergency hazardous materials response plans. Based upon the findings of the review, PHMSA will then issue guidance and/or rules to address the NTSB recommendations.

Finally, the National Response Team (NRT) Training and Curriculum Subcommittee, cochaired by PHMSA and the Federal Emergency Management Agency's United States Fire Administration provides a forum for resolution of interagency hazmat planning and training issues. We placed the issues raised in your recommendation on the Subcommittee agenda and moderated a thorough discussion of the recommendation and possible actions to address it. The NRT Subcommittee will assist PHMSA with reviewing a sample of drills and exercises and is currently considering protocols for local responders to use when working with the rail industry.

Based upon the on-going activities that PHMSA is currently conducting, we request that you classify recommendation R-07-4 and R-07-5 as "Open-Acceptable Action." We thank you for your consideration of our request.

If you have any questions, please contact me at (202) 366-4433.

Sincerely,

Stacey L. Gerard

Assistant Administrator/Chief Safety Officer



National Transportation Safety Board

Washington, D.C. 20594

MAR 17 2008

The Honorable Carl T. Johnson Administrator Pipeline and Hazardous Materials Safety Administration Washington, D.C. 20590

Dear Mr. Johnson:

Thank you for the August 9, 2007, response signed by Ms. Stacey L. Gerard, Assistant Administrator/Chief Safety Officer, to the National Transportation Safety Board regarding Safety Recommendations R-07-4 and -5, stated below. The Safety Board issued these recommendations to the Pipeline and Hazardous Materials Safety Administration (PHMSA), as a result of the Board's investigation of the collision of two Canadian National Railway Company freight trains near Anding, Mississippi, on July 10, 2005.

R-07-4

With the assistance of the Federal Railroad Administration, require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.

R-07-5

Require and verify that States and their communities that receive funds through the Hazardous Materials and Emergency Preparedness [HMEP] grant program conduct training exercises and drills with the joint participation of railroads and other transporters of hazardous materials operating within their jurisdictions as a means of evaluating State, regional, and local emergency hazardous materials response plans.

The Safety Board notes PHMSA's agreement that effective emergency response depends on thorough, accurate, real-time information, planning, and training. PHMSA is examining (1) ways to improve the availability of accurate and immediate information for emergency responders at the scene of an accident and (2) strategies for enhancing emergency response planning and training efforts, including more targeted use of the HMEP grant program funds.

The Safety Board also notes that PHMSA is currently evaluating the emergency response issues raised in the recommendation and the Federal, State, and local government and industry programs intended to address those issues. These efforts by PHMSA constitute an acceptable response to the recommendations; accordingly, Safety Recommendations R-07-4 and -5 are

classified "Open—Acceptable Response." The Board would appreciate receiving periodic updates as you continue actions to fully implement Safety Recommendations R-07-4 and -5.

Thank you for your response to these recommendations and your commitment to transportation safety.

Sincerely,

Mark V. Rosenker

Chairman

cc: Ms. Linda Lawson, Director Office of Safety, Energy, and Environment Office of Transportation Policy

Ms. Stacey L. Gerard
Assistant Administrator/Chief Safety Officer