



THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 23, 2008

The Honorable Daniel K. Inouye
Chairman
Committee on Commerce, Science and Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Norman Y. Mineta Research and Special Programs Improvement Act (P.L. 108-426), in Section 6(b)(2), requires the U.S. Department of Transportation (DOT) to submit an annual report concerning open National Transportation Safety Board and DOT Office of the Inspector General safety recommendations addressing pipeline and hazardous materials safety. The enclosed report, "National Transportation Safety Board (NTSB) and DOT Office of the Inspector General (OIG): Open Safety Recommendations on Pipeline and Hazardous Materials Safety," fulfills that requirement.

With safety as our highest priority, the Department has aggressively sought closure of open NTSB and OIG pipeline and hazardous materials safety recommendations. I am pleased to report that five NTSB and two OIG recommendations have been closed since our January 2007 report. As of this report, 46 NTSB recommendations and four OIG safety recommendations remain open. The Department will continue to work diligently with the NTSB and the OIG to close the open recommendations within the timelines allowed by technical assessment, rulemaking, public comment, and due diligence.

An identical letter has been sent to the Vice Chairman of the Senate Committee on Commerce, Science and Transportation, and the Chairmen and Ranking Members of the House Committees on Transportation and Infrastructure and Energy and Commerce.

Sincerely yours,

A handwritten signature in cursive script that reads "Mary E. Peters".

Mary E. Peters

Enclosure



THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 23, 2008

The Honorable Ted Stevens
Vice Chairman
Committee on Commerce, Science and Transportation
United States Senate
Washington, DC 20510

Dear Senator Stevens:

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An identical letter has been sent to the Chairman of the Senate Committee on Commerce, Science and Transportation, and the Chairmen and Ranking Members of the House Committees on Transportation and Infrastructure and Energy and Commerce.

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Mary E. Peters

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THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

June 23, 2008

The Honorable James L. Oberstar
Chairman
Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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An identical letter has been sent to the Ranking Member of the House Committee on Transportation and Infrastructure, the Chairman and Ranking Member of the House Committee on Energy and Commerce, and the Chairman and Vice Chairman of the Senate Committee on Commerce, Science and Transportation.

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Mary E. Peters

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THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

June 23, 2008

The Honorable John L. Mica
Ranking Member
Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Mica:

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An identical letter has been sent to the Chairman of the House Committee on Transportation and Infrastructure, the Chairman and Ranking Member of the House Committee on Energy and Commerce, and the Chairman and Vice Chairman of the Senate Committee on Commerce, Science and Transportation.

Sincerely yours,

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Mary E. Peters

Enclosure



THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

June 23, 2008

The Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

June 23, 2008

The Honorable Joe Barton
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Barton:

The Norman Y. Mineta Research and Special Programs Improvement Act (P.L. 108-426), in Section 6(b)(2), requires the U.S. Department of Transportation (DOT) to submit an annual report concerning open National Transportation Safety Board and DOT Office of the Inspector General safety recommendations addressing pipeline and hazardous materials safety. The enclosed report, "National Transportation Safety Board (NTSB) and DOT Office of the Inspector General (OIG): Open Safety Recommendations on Pipeline and Hazardous Materials Safety," fulfills that requirement.

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Mary E. Peters

Enclosure

**National Transportation Safety Board (NTSB)
and
DOT Office of the Inspector General (OIG):**

**Open Safety Recommendations on
Pipeline and Hazardous Materials Safety**

A Report to Congress Required by P.L. 108-426

**U.S. Department of Transportation
January 2008**

National Transportation Safety Board (NTSB) and
DOT Office of the Inspector General (OIG):
Open Safety Recommendations on Pipeline and Hazardous Materials Safety

January 2008

Executive Summary

The Norman Y. Mineta Research and Special Programs Improvement Act (P.L. 108-426) directs the Secretary of Transportation to submit a report on open National Transportation Safety Board (NTSB) and Department of Transportation (DOT) Office of the Inspector General (OIG) recommendations concerning pipeline and hazardous materials safety. Specifically, the Act states:

Section 6(b)(2) NTSB AND INSPECTOR GENERAL RECOMMENDATIONS –
Not later than January 1st of each year, the Secretary shall transmit to the Committee on Transportation and Infrastructure and the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report containing each recommendation referred to in subsection (a)(2) and a copy of the Department of Transportation response to each such recommendation.

The Department has aggressively sought closure of open NTSB and OIG recommendations. Since the last report, January 2007, DOT succeeded in responding to and receiving “closed, acceptable action” responses from the NTSB on two pipeline recommendations and three hazardous materials recommendations. The Pipeline and Hazardous Materials Safety Administration (PHMSA) received four new NTSB pipeline safety recommendations and 12 new hazardous materials safety recommendations. There are currently 46 open NTSB pipeline and hazardous materials safety recommendations assigned to DOT (see Appendix A for the status of NTSB recommendations; updates are highlighted). Copies of DOT responses to the NTSB on open recommendations are included as required in the Mineta Act (see Appendix B).

DOT has successfully addressed two OIG pipeline and hazardous materials safety recommendations since the January 2007 report. There are currently four open OIG pipeline and hazardous materials safety recommendations (see Appendix C for the status of OIG recommendations; updates are highlighted). Copies of DOT responses to the OIG on open recommendations are included as required in the Mineta Act (see Appendix D).

DOT will continue to work diligently with the NTSB and the OIG to close NTSB’s open recommendations, within the timelines allowed by technical assessment, rulemaking, public comment, due diligence, and other required administrative processes.

Report Structure

This report consists of an executive summary and four appendices:

- Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety – This section summarizes the status of open NTSB recommendations assigned to DOT.
- Appendix B: Recent Responses to NTSB Recommendations – This section appends the most recent correspondence to the NTSB on the status of open recommendations.
- Appendix C: Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety – This section summarizes the status of open OIG safety recommendations assigned to DOT.
- Appendix D: Responses to OIG Recommendations – This section appends the DOT response to the OIG on open recommendations.

Report Contact

Questions about the contents of this report may be directed to:

Office of Governmental, International and Public Affairs
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE (East Bldg.)
Washington, DC 20590
(202) 366-4831
(202) 366-7431 (fax)

**National Transportation Safety Board (NTSB)
and
DOT Office of the Inspector General (OIG):**

**Open Safety Recommendations on
Pipeline and Hazardous Materials Safety**

**Appendix A:
Status of Open NTSB Recommendations for Pipeline and
Hazardous Materials Safety Assigned to DOT**

**U.S. Department of Transportation
January 2008**

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

NTSB Rec. Number	Date Rec. Issued	Lead Agency	Recommendation/Action Needed	Current Status
PIPELINE SAFETY				
P-90-29	10/01/90	PHMSA	Develop and implement, with the assistance of the Minerals Management Service, the U.S. Coast Guard, and the U.S. Army Corps of Engineers, effective methods and requirements to bury, protect, inspect the burial depth of, and maintain all submerged pipelines in areas subject to damage by surface vessels and their operations.	<p>PHMSA published a final rule requiring periodic underwater inspection on August 10, 2004. PHMSA submitted a letter to NTSB requesting closure. NTSB responded by encouraging PHMSA to conduct further studies on risks associated with offshore areas.</p> <p>On November 6, 2006, PHMSA completed a "Study on Burial of Submerged Pipelines." The study addressed the risks of exposed pipelines and possible hazards to navigation in offshore waters other than the Gulf of Mexico and its inlets. The results show 58 reported instances of a vessel or its equipment striking a pipeline offshore since 1990. All incidents were in the Gulf of Mexico, where regulation requires the periodic underwater inspections program. On April 30, 2007, PHMSA issued a 30-day notice seeking public comment on the adequacy of the study and received no comments. Further, in conjunction with a Memorandum of Understanding with the Federal Energy Regulatory Commission (FERC) to exchange relevant information related to the safety and security aspects of Liquefied Natural Gas (LNG) facilities and related marine concerns, PHMSA forwarded a copy of the report to FERC. FERC plans to continue working with PHMSA to ensure the adequate protection of offshore LNG facility pipelines and PHMSA can recommend that FERC requires site specific controls as needed to address unique hazards in a given geographic area.</p> <p>PHMSA sent a letter to the NTSB on February 7, 2008, requesting closure.</p> <p>(NTSB Classification: Open, acceptable response)</p>
P-98-02	04/30/98	PHMSA	Determine the extent of the susceptibility to premature brittle-like cracking of older plastic piping that remains in use for gas service nationwide.	<p>The Plastic Pipe Database Committee, which includes representatives from PHMSA, NTSB, American Gas Association, American Public Gas Association, Plastics Pipe Institute, Gas Research Institute, industry, and State regulators, recently completed collecting data and preparing a table for in-service plastic piping material failures. The data collected from 2001 to present, on the nation's natural gas distribution systems includes both actual failure information and negative reports submitted voluntarily by participating pipeline operating companies. The data indicates the susceptibility of additional specific materials to brittle-like</p>

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

				<p>cracking. Based on the findings, on September 6, 2007, PHMSA issued an updated notification of the susceptibility of premature brittle-like cracking of vintage plastic pipe. Additionally, the Gas Distribution Integrity Management Program Report found need for the American Society for Testing and Materials (ASTM) to consider enhancing performance testing for plastic pipe fittings. ASTM is currently addressing these issues. Further, PHMSA has also gone beyond the recommendation and is considering requiring operators to report by telephone or through PHMSA's website suspect older plastic pipe resulting from failure as part of a distribution integrity management program.</p> <p>PHMSA is drafting a letter to send to the NTSB requesting closure.</p> <p>(NTSB Classification: Open, acceptable response)</p>
P-99-12	06/01/99	PHMSA	<p>Establish within 2 years scientifically based hours-of-service regulations that set limits on hours of service, provide predictable work and rest schedules, and consider circadian rhythms and human sleep and rest requirements.</p>	<p>In a January 2007, report to Congress on the Controller Certification Project (CCERT), PHMSA identified shift length, schedule rotation, and education in fatigue mitigation strategies as fruitful elements in a control room risk control program that would address fatigue. The Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 (PIPES Act) requires regulations for each operator of a gas or hazardous liquid pipeline to develop a plan, subject to PHMSA review, to reduce pipeline system risk associated with human factors, including fatigue. The Act also requires PHMSA to amend its forms for operators to report gas and hazardous liquid pipeline accidents by December 31, 2007. PHMSA is working with the Department's Human Factors Coordinating Committee on a holistic approach to addressing fatigue issues throughout the workforce. We plan to include this approach within our control room management regulation which will consider additional emphasis on the range of opportunities to prevent risk through actions people can take, an initiative we call "Prevention Through People." This regulatory initiative also will address NTSB Recommendations P-05-01, P-05-02, and P-05-03 on alarm systems, the response to which is included in PHMSA's control room management, one of PHMSA's regulatory priorities.</p> <p>PHMSA held a workshop on May 23, 2007, that addressed best practices in this area. PHMSA is developing a regulatory proposal that it plans to issue in 2008.</p> <p>(NTSB Classification: Open, acceptable response)</p>
P-01-02	06/22/01	PHMSA	<p>Require that excess flow valves be installed in all new and renewed gas service lines, regardless of a</p>	<p>The PIPES Act requires PHMSA to prescribe minimum distribution integrity management standards by December 31, 2007. The Act also</p>

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

			customer's classification, when the operating conditions are compatible with readily available valves.	includes a requirement for gas distribution operators to install excess flow valves (EFVs) on lines serving single-family residences installed or entirely replaced beginning June 1, 2008. This is one of PHMSA's highest regulatory priorities. PHMSA has developed an NPRM, which we plan to issue by the summer of 2008. This distribution integrity management NPRM will include mandatory installation of EFVs on new or replaced service lines on single residents as specified by the Act and recommended by NTSB. The PHMSA Administrator requested cooperation from State Commissioners in reminding operators of their responsibilities under the statute to begin installing EFVs on June 1, 2008. State pipeline safety agencies, which oversee most distribution operators, have been actively encouraging operators to begin these installations for some time. (NTSB Classification: Open, acceptable response)
P-03-01	02/27/03	PHMSA	Revise 49 <i>Code of Federal Regulations</i> Part 192 to require that new or replaced pipelines be designed and constructed with features to mitigate internal corrosion. At a minimum, such pipelines should (1) be configured to reduce the opportunity for liquids to accumulate, (2) be equipped with effective liquid removal features, and (3) be able to accommodate corrosion monitoring devices at locations with the greatest potential for internal corrosion.	NTSB closed recommendation on September 20, 2007. (NTSB Classification: Closed, acceptable action)
P-04-01	07/01/04	PHMSA	Remove the exemption in 49 <i>Code of Federal Regulations</i> 192.65 (b) that permits pipe to be placed in natural gas service after pressure testing when the pipe can not be verified to have been transported in accordance with the American Petroleum Institute's recommended practice RP 5L1.	PHMSA is conducting a study of the technical feasibility of removing the exemption or other alternative actions. The study is scheduled to be completed by the summer of 2008. PHMSA will also seek the advice of the advisory committee as to whether rulemaking or some form of advisory to gas pipeline companies is needed. (NTSB Classification: Open, acceptable response)
P-04-02	07/01/04	PHMSA	Amend 49 <i>Code of Federal Regulations</i> to require that natural gas pipeline operators (Part 192) and hazardous liquid pipeline operators (Part 195) follow the American Petroleum Institute's recommended practice RP 5LW for transportation of pipe on marine vessels.	API is working to revise API RP 5LW in response to a NTSB recommendation. PHMSA intends to include incorporation of API RP 5LW as NTSB recommends in its miscellaneous amendments rulemaking proposal. The standard is expected to be complete at the end of 2008. PHMSA will incorporate shortly after. (NTSB Classification: Open, acceptable response)
P-04-03	07/01/04	PHMSA	Evaluate the need for a truck transportation standard to prevent damage to pipe, and, if needed, develop the standard and incorporate it in 49 <i>Code of</i>	There is little research available on the issue. PHMSA consulted Pipeline Research Council International (PRCI) and the ASME. PRCI has taken up the challenge and is conducting research on the impact of

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

			<i>Federal Regulations</i> Parts 192 and 195 for both natural gas and hazardous liquid line pipe.	truck transportation of pipe. PRCI has a working draft which is expected to be completed shortly. (NTSB Classification: Open, acceptable response)
P-05-01	12/23/05	PHMSA	Require operators of hazardous liquid pipelines to follow the American Petroleum Institute's Recommended Practice 1165 for the use of graphics on the Supervisory Control and Data Acquisition screens.	In January 2007, PHMSA submitted a report to Congress on the project that identified several areas for enhancing safety including improved graphics on SCADA screens, alarms, and training. On May 23, 2007, PHMSA held a public workshop that addressed best practices in addressing fatigue, man-machine interface, and qualifications and training. The PIPES Act requires PHMSA to issue regulations by June 1, 2008, requiring operators to use the American Petroleum Institute's Recommended Practice 1165. PHMSA plans to address control room issues in a regulatory effort that will incorporate the concepts of integrity management programs into risk-based regulations addressing human factors – focusing on all opportunities for people to contribute to risk reduction. PHMSA has worked extensively on this regulatory effort and expects to issue the NPRM by the summer of 2008. It will address both the Congressional direction and NTSB recommendations on use of graphics, review of alarms, controller training, and controller fatigue. (NTSB Classification: Open, acceptable response)
P-05-02	12/23/05	PHMSA	Require pipeline companies to have a policy for the review/audit of alarms.	In January 2007, PHMSA submitted a report to Congress on the project that identified several areas for enhancing safety including improved graphics on SCADA screens, alarms, and training. On May 23, 2007, PHMSA held a public workshop that addressed best practices in addressing fatigue, man-machine interface, and qualifications and training. The PIPES Act requires PHMSA to issue regulations by June 1, 2008, requiring operators to review and audit alarm systems. PHMSA plans to address control room issues in a regulatory effort that will incorporate the concepts of integrity management programs into risk-based regulations addressing human factors. PHMSA has worked extensively on this regulatory effort and expects to issue the NPRM by the summer of 2008. It will address both the congressional direction and NTSB recommendations on use of graphics, review of alarms, controller training, and controller fatigue. (NTSB Classification: Open, acceptable response)
P-05-03	12/23/05	PHMSA	Require controller training to include simulator or non-computerized simulations for controller recognition of abnormal operating conditions, in	In January 2007, PHMSA submitted a report to Congress on the project that identified several areas for enhancing safety including improved graphics on SCADA screens, alarms, and training. On May 23, 2007,

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

			particular, leak events.	<p>PHMSA held a public workshop that addressed best practices in addressing fatigue, man-machine interface, and qualifications and training. The PIPES Act requires PHMSA to issue regulations by June 1, 2008, requiring operators to review and audit alarm systems. PHMSA plans to address control room issues in a regulatory effort that will incorporate the concepts of integrity management programs into risk-based regulations addressing human factors. PHMSA has worked extensively on this regulatory effort and expects to issue the NPRM by the summer of 2008. It will address both the congressional direction and NTSB recommendations on use of graphics, review of alarms, controller training, and controller fatigue.</p> <p>(NTSB Classification: Open, acceptable response)</p>
P-05-04	12/23/05	PHMSA	Change the liquid accident reporting form (PHMSA F 7000-1) and require operators to provide data related to controller fatigue.	<p>In January 2007, PHMSA submitted a report to Congress on the project that identified several areas for enhancing safety including improved graphics on SCADA screens, alarms, and training. On May 23, 2007, PHMSA held a public workshop that addressed best practices in addressing fatigue, man-machine interface, and qualifications and training. The PIPES Act requires PHMSA to issue regulations by June 1, 2008, requiring operators to review and audit alarm systems. PHMSA plans to address control room issues in a regulatory effort that will incorporate the concepts of integrity management programs into risk-based regulations addressing human factors. PHMSA has worked extensively on this regulatory effort and expects to issue the NPRM in 2008. To specifically address the NTSB recommendation to change the liquid accident reporting form to provide data related to controller fatigue, PHMSA has developed a draft accident form that has been reviewed by industry and our state pipeline partners. We anticipate publishing a Federal Notice seeking comment by the summer of 2008.</p> <p>(NTSB Classification: Open, acceptable response)</p>
P-05-05	12/23/05	PHMSA	Require operators to install computer-based leak detection systems on all lines unless engineering analysis determines that such a system is not necessary.	<p>The PIPES Act requires PHMSA to submit a report to Congress on adequacy of current leak detection systems used by operators of hazardous liquid pipelines and new technology. A summary of technical findings was posted in December 2007 for public comment and PHMSA expects to submit the report to Congress by the summer of 2008. PHMSA has inspected the integrity management programs of all hazardous liquid operators and based on the inspection results required many operators to enhance their leak detection capabilities.</p> <p>(NTSB Classification: Open, acceptable response)</p>

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

P-07-01	6/7/07	PHMSA	Provide a summary of the lessons learned from the Bergenfield, New Jersey accident to recipients of emergency response planning and response grants.	<p>NTSB closed recommendation on March 17, 2008.</p> <p>(NTSB Classification: Closed, acceptable action)</p>
P-07-07	5/25/07	PHMSA	Require in 49 <i>Code of Federal Regulations</i> 195.52 that a pipeline operator must have a procedure to calculate and provide a reasonable initial estimate of released product in the telephonic report to the National Response Center.	<p>PHMSA is examining possible solutions to obtain more accurate and timely information. PHMSA regulations now require operators to notify PHMSA in writing about significant changes in accidents they have reported. PHMSA is exploring the feasibility of having operators provide both initial and updated estimates of released product in telephonic reports to the National Response Center (NRC). This approach would require PHMSA to first modify our contract and funding arrangements with the NRC. Another approach PHMSA is considering is requiring submission of updated information on the estimated amount of released product through PHMSA's telephonic notification management system, which builds on the initial telephonic reports to the NRC. PHMSA is still considering the logistical and regulatory challenges of these approaches and looking for other solutions to address the NTSB's recommendations. While PHMSA anticipates providing a more detailed response soon, we sent an initial response letter to the NTSB on October 23, 2007, and are awaiting a reply.</p> <p>(NTSB Classification: Open, await response)</p>
P-07-08	5/25/07	PHMSA	Require in 49 <i>Code of Federal Regulations</i> 195.52 that a pipeline operator must provide an additional telephonic report to the National Response Center if significant new information becomes available during the emergency response.	<p>PHMSA is examining possible solutions to obtain more accurate and timely information. PHMSA regulations now require operators to notify PHMSA in writing about significant changes in accidents they have reported. PHMSA is exploring the feasibility of having operators provide both initial and updated estimates of released product in telephonic reports to the NRC. This approach would require PHMSA to first modify our contract and funding arrangements with the NRC. Another approach PHMSA is considering is requiring submission of updated information on the estimated amount of released product through PHMSA's telephonic notification management system, which builds on the initial telephonic reports to the NRC. PHMSA is still considering the logistical and regulatory challenges of these approaches and looking for other solutions to address the NTSB's recommendations. While PHMSA anticipates providing a more detailed response soon, we sent an initial response letter to the NTSB on October 23, 2007, and are awaiting a reply.</p> <p>(NTSB Classification: Open, await response)</p>

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

P-07-09	5/25/07	PHMSA	Require an operator to revise its pipeline risk assessment plan whenever it has failed to consider one or more risk factors that can affect pipeline integrity.	PHMSA reviewed its current regulations to ensure that they are adequate. The Federal pipeline safety regulations require operators to develop a comprehensive risk analysis process and consider all relevant risk factors (49 CFR 195.452(e)). During our integrity management inspections for hazardous liquid operators, we found that 37 percent of the operators failed to adequately develop a comprehensive risk analysis, and where appropriate, addressed deficiencies through enforcement actions. PHMSA also reviewed its inspection protocols for adequacy, and found that they contain explicit risk analysis criteria. Based on the NTSB recommendation, however, PHMSA is considering modifying the language in its enforcement notices to explicitly require the operator to address all risk factors. PHMSA sent an initial response letter to the NTSB on October 23, 2007, and is awaiting a reply. (NTSB Classification: Open, await response)
HAZARDOUS MATERIALS SAFETY				
R-89-48 R-89-53	07/14/89	FRA PHMSA	FRA and PHMSA amend 49 CFR Part 179 to require that closure fittings on hazardous material rail tanks be designed to maintain their integrity in accidents that are typically survivable by rail tank.	FRA completed Phase I of a three-phase study on structural strength of various tank-car fittings and the findings were published in a report titled "Survivability of Railroad Tank Car Top Fittings in Rollover Scenario Derailments, Phase I" on December 2005. Phase II has been completed and is in the process of final review with an anticipated publish date of the Phase II Report by June 30, 2008. Phase III, the full-scale tank car rollover testing of non-pressure tank cars, is scheduled to begin in June 2008. PHMSA and FRA will consider regulatory changes once the research is complete. (NTSB Classification: Open, unacceptable response)
R-92-22 R-92-23	12/31/92	FRA PHMSA	FRA and PHMSA develop and promulgate requirements for the periodic testing and inspection of rail tank cars that help to ensure the detection of cracks before they propagate to critical length by establishing inspection intervals that are based on the defect size detectable by the inspection method used, the stress level, and the crack propagation characteristics of the structural component (requirements based on a damage-tolerance approach).	In March 2007, the report "Tank Car Reliability Design and Analysis" was published. The report "Quantification of a Critical Flaw Size Based on Weld and Location Geometry" is at FRA for review. Ongoing research by FRA and industry to improve crack detection in rail tank cars is nearing completion. PHMSA will consider regulatory changes once the research is complete. (NTSB Classification: Open, acceptable response)
R-01-02 R-01-03	03/12/01	FRA PHMSA	FRA and PHMSA evaluate, with the assistance of the Association of American Railroads (AAR), and the Railway Progress Institute (RPI), the deterioration of pressure relief devices through normal service and then develop inspection criteria	PHMSA, FRA, AAR, RPI and Transport Canada established a Task Force to review and evaluate inspection reports on pressure relief devices. The task force has data on over 5,000 pressure relief valve inspections. The in-service test protocol has been added to AAR Manual Appendix U. Based on their review of the inspection data, the

Appendix A: Status of Open NTSB Recommendations for Pipeline and Hazardous Materials Safety Assigned to DOT

			to ensure that the pressure relief devices remain functional between regular inspection intervals. Incorporate these inspection criteria into the U.S. Department of Transportation <i>Hazardous Materials Regulations</i> .	<p>AAR Task Force plans to make recommendations to the AAR in April 2008. Recommendations are expected to include a petition to PHMSA to relax the tolerances for start-to-discharge pressure on in-service pressure relief valves because they believe using the same tolerances as for new valves is too stringent. Upon in-service testing, this would cause fewer valves to be considered in non-compliance.</p> <p>Also, the AAR voted on a proposal from the API to add a requirement to AAR Manual Appendix D for new gaskets for all valves, and gauging devices and a new o-ring on the thermometer well cap. Based on their review of the data collected from valves removed from liquefied petroleum gas (LPG) cars, the API Rail Transportation Committee believes that this will reduce known non-accident releases, and improve overall containment of LPG.</p> <p>PHMSA will consider regulatory changes once the task force completes its work.</p> <p>(NTSB Classification: Open, acceptable response)</p>
R-04-04	03/15/04	FRA	Conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. At a minimum, the safety analysis should include the results of dynamic fracture toughness tests and/or the results of nondestructive testing techniques that provide information on material ductility and fracture toughness. The data should come from samples of steel from the tank shells from original manufacturing or from a statistically representative sampling of the shells of the pre-1989 pressure tank car fleet.	<p>Field testing has been completed. The FRA and Volpe National Transportation Systems Center (Volpe) team presented a series of reports on the field testing (modeling research) at the American Society of Mechanical Engineers (ASME) conference in Chicago on September 11, 2007. The final report on all modeling and testing conducted is expected to be finalized by Volpe in 2008. Once FRA receives the final report, it will formulate and/or implement the necessary actions needed to address the recommendation.</p> <p>(NTSB Classification: Open, acceptable response)</p>
R-04-05	03/15/04	FRA	Based on the results of the Federal Railroad Administration's comprehensive analysis to determine the impact resistance of the steel in the shells of pressure tank cars constructed before 1989, as addressed in Safety Recommendation R-04-4, establish a program to rank those cars according to their risk of catastrophic fracture and separation and implement measure to eliminate or mitigate this risk. This ranking should take into consideration operating temperatures, pressures, and maximum train speeds.	<p>Field testing has been completed. The FRA and Volpe team presented a series of reports on the field testing (modeling research) at the ASME conference in Chicago on September 11, 2007. The final report on all modeling and testing conducted is expected to be finalized by Volpe in 2008. Once FRA receives the final report, it will formulate and/or implement the necessary actions needed to address the recommendation.</p> <p>(NTSB Classification: Open, acceptable response)</p>

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R-04-06	03/15/04	FRA	Validate the predictive model the Federal Railroad Administration is developing to quantify the maximum dynamic forces acting on railroad tank cars under accident conditions.	Field testing has been completed. The FRA and Volpe team presented a series of reports on the field testing (modeling research) at the ASME conference in Chicago on September 11, 2007. The final report on all modeling and testing conducted is expected to be finalized by Volpe by in 2008. Once FRA receives the final report, it will formulate and/or implement the necessary actions needed to address the recommendation. (NTSB Classification: Open, acceptable response)
R-04-07	03/15/04	FRA	Develop and implement tank car design-specific fracture toughness standards, such as a minimum average Charpy value, for steels and other materials of construction for pressure tank cars used for the transportation of U. S. Department of Transportation class 2 hazardous materials, including those in "low temperature" service. The performance criteria must apply to the material orientation with the minimum impact resistance and take into account the entire range of operating temperatures of the tank car.	Field testing has been completed. The FRA and Volpe team presented a series of reports on the field testing (modeling research) at the ASME conference in Chicago on September 11, 2007. The final report on all modeling and testing conducted is expected to be finalized by Volpe by in 2008. Once FRA receives the final report, it will formulate and/or implement the necessary actions needed to address the recommendation. (NTSB Classification: Open, acceptable response)
R-04-10	12/15/04	PHMSA	In cooperation with the Occupational Health and Safety Administration and the Environmental Protection Agency, develop regulations that require safe operating procedures to be established before hazardous materials are heated in a railroad tank car for unloading; at a minimum, the procedures should include the monitoring of internal tank pressure and cargo temperature.	PHMSA has analyzed the risk due to bulk loading and unloading operations over the past decade and has concluded that roughly one-quarter to one-half of the overall hazardous materials transportation risk may be attributable to loading and unloading operations. PHMSA hosted a workshop on June 14, 2007, that brought stakeholders together for conceptual discussions on the risks associated with the loading and unloading issues and the range of actions which could be taken by the government and industry to address the risks. On January 4, 2008, PHMSA published a notice to solicit information and comments on proposed recommended practices for loading and unloading operations involving bulk packagings used to transport hazardous materials. Based on information and comments received, we plan to consider strategies for enhancing the safety of bulk loading and unloading operations, including whether additional regulatory requirements may be necessary. In addition, we are soliciting comments on whether there are existing gaps and/or overlaps in regulations promulgated by PHMSA, OSHA, EPA and the USCG that adversely affect the safety of these operations, and how any identified gaps and/or overlaps in Federal regulations should be addressed. (NTSB Classification: Open, unacceptable response)
R-05-17	12/12/05	FRA	The National Transportation Safety Board recommends that the Federal Railroad	FRA awarded a contract on September 28, 2007, to Technical Products Inc. (TPI) of Ayer, MA. FRA held a kick-off meeting with TPI on

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			Administration: Determine the most effective methods of providing emergency escape breathing apparatus for all crewmembers on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of unintentional release, and then require railroads to provide these breathing apparatus to their crewmembers along with appropriate training.	October 5, 2007. TPI will submit a draft report for review by the FRA. (NTSB Classification: Open, acceptable response)
R-07-4	4/25/07	PHMSA	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.	<p>In March 2005, the Association of American Railroads 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.</p> <p>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.</p> <p>In December 2006, CHEMTREC implemented a second pilot project to evaluate the utility for emergency response of Railinc Corporation's Freightscope™ service, which provides a web-based, interactive dashboard of near-real-time rail shipment location information for North America. The Freightscope™ system improved CHEMTREC's ability to provide real-time hazardous materials information about shipments on short line and regional railroads.</p> <p>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</p>

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				<p>carrier or customer to address the condition identified by the alert.</p> <p>PHMSA and Federal Railroad Administration (FRA) 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.</p> <p>PHMSA and FRA published a Notice of Proposed Rulemaking on April 1, 2008, proposing revisions to the HMR to improve the crashworthiness protection of railroad tank cars designed to transport poison inhalation hazard materials and raised questions of opportunities for proactive measures to improve emergency response.</p> <p>PHMSA sent a letter to the NTSB on January 22, 2008, requesting this recommendation be classified "Open, acceptable response."</p> <p>(NTSB Classification: Open, acceptable response)</p>
R-07-5	4/25/07	PHMSA	<p>Require and verify that States and their communities that receive funds through the Hazardous Materials and 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.</p>	<p>Hazardous Materials Emergency Preparedness (HMEP) grant recipients 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 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.</p> <p>PHMSA staff continues to actively participate in TRANSCAER 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.</p>

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				<p>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.</p> <p>PHMSA sent a letter to the NTSB on January 22, 2008, requesting this recommendation be classified "Open, acceptable response."</p> <p>(NTSB Classification: Open, acceptable response)</p>
H-92-1	03/20/92	PHMSA	<p>Provide cargo tank manufacturers specific written guidance about (a) the factors and assumptions that must be considered when calculating the loads on cargo tank rollover protection devices in determining compliance with existing DOT performance standards; and (b) acceptable means to shield and protect the top-mounted closure fittings on all bulk liquid cargo tanks.</p>	<p>PHMSA and FMCSA are considering stability control systems and other methods to prevent rollover accidents from occurring.</p> <p>As part of a systems approach, PHMSA and FMCSA partnered with the National Tank Truck Carriers, Inc. (NTTC) to hold a series of three Cargo Tank Rollover Safety Summits in St. Louis, MO, Baltimore, MD, and Oakland, CA during November and December 2007. The summits focused on four approaches to reducing the number and severity of cargo tank truck rollovers: driver training, the use of electronic stability controls, redesigning the vehicle, and redesigning highways.</p> <p>The two approaches which PHMSA, FMCSA and our industry partners can focus on in the near term are driver training, including raising driver awareness of the potential hazards and frequency of rollover incidents, and the use of electronic stability controls.</p> <p>(NTSB Classification: Open, acceptable response)</p>
H-98-27	05/18/98	PHMSA	<p>DOT 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.</p>	<p>PHMSA is pursuing non-regulatory strategies to address the recommendation. For example PHMSA developed a comprehensive national wetlines outreach awareness program to enhance public safety and assist those who respond to transportation emergencies. Outreach efforts are focused on identifying "best practices" for fueling operations, maintenance procedures, and safeguards measures. In addition, the industry is taking action voluntarily to limit the safety risks associated with the transportation of flammable liquids in unprotected wetlines and PHMSA is promoting these approaches. One large gasoline distributor has installed purging systems on its cargo tank motor vehicles (CTMVs). Another large gasoline distributor has installed damage protection equipment on its CTMVs that could help to mitigate the consequences of a collision with an automobile or other vehicle.</p> <p>PHMSA is improving access to incident data and will continue to</p>

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				<p>evaluate incident data and other information in order to address the issues further if warranted.</p> <p>(NTSB Classification: Open, acceptable response)</p>
H-02-23	09/26/02	PHMSA	<p>Modify 49 <i>Code of Federal Regulations</i> 173.301 to clearly require that valves, piping, and fittings for cylinders that are horizontally mounted and used to transport hazardous materials are protected from multidirectional forces that are likely to occur during accidents, including rollovers.</p>	<p>PHMSA published an NPRM on April 12, 2007, proposing to incorporate the requirement of the CGA Technical Bulletin 25 (TB-25 Design Considerations for Tube Trailers) into the HMR. TB-25 defines basic design considerations for tube trailers to maintain structural integrity during handling and transport. Designs must be able to withstand static, dynamic, and thermal loads found during handling and transport. Designs must address the mounting of individual tubes in tube bundles; attachment of tube bundles to the motor vehicle chassis; and accident damage protection for pressure retaining equipment. PHMSA expects to publish a final rule on this issue by the summer of 2008.</p> <p>(NTSB Classification: Open, acceptable response)</p>
H-02-24	09/26/02	PHMSA	<p>Require that cylinders that transport hazardous materials and are horizontally mounted on a semitrailer be protected from impact with the roadway or terrain to reduce the likelihood of their being fractured and ejected during a rollover accident.</p>	<p>PHMSA published an NPRM on April 12, 2007, proposing to incorporate the requirement of the CGA Technical Bulletin 25 (TB-25 Design Considerations for Tube Trailers) into the HMR. TB-25 defines basic design considerations for tube trailers to maintain structural integrity during handling and transport. Designs must be able to withstand static, dynamic, and thermal loads found during handling and transport. Designs must address the mounting of individual tubes in tube bundles; attachment of tube bundles to the motor vehicle chassis; and accident damage protection for pressure retaining equipment. PHMSA expects to publish a final rule on this issue by the summer of 2008.</p> <p>(NTSB Classification: Open, acceptable response)</p>
H-04-23	07/01/04	PHMSA	<p>Require periodic nondestructive testing to be conducted on nurse tanks to identify material flaws that could develop and grow during a tank's service and result in a tank failure.</p>	<p>After review of incident data and other information concerning the safety performance of nurse tanks, PHMSA agrees with NTSB that additional requirements, including periodic testing, should be considered. PHMSA is working with stakeholders to evaluate alternatives for enhancing nurse tank safety.</p> <p>(NTSB Classification: Open, acceptable response)</p>
A-99-80 A-99-85	11/16/99	PHMSA FAA	<p>PHMSA and FAA evaluate the fire hazards posed by lithium batteries in an air transportation environment and require that appropriate safety measures be taken to protect aircraft and occupants. The evaluation should consider the testing requirements for lithium batteries in the United</p>	<p>NTSB closed recommendation on December 5, 2007</p>

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			Nations <i>Transport of Dangerous Goods Manual of Tests and Criteria</i> , the involvement of packages containing large quantities of tightly packed batteries in a cargo compartment fire, and the possible exposure of batteries to rough handling in an air transportation environment, including being crushed or abraded open.	(NTSB Classification: Closed, acceptable action)
A-99-82	11/16/99	PHMSA	Require that packages containing lithium batteries be identified as hazardous materials, including appropriate marking and labeling of the packages and proper identification in shipping documents, when transported on aircraft.	NTSB closed recommendation on December 5, 2007 (NTSB Classification: Closed, acceptable action)
A-07-104	12/17/07	PHMSA	Require aircraft operators to implement measures to reduce the risk of primary lithium batteries becoming involved in fires on cargo-only aircraft, such as transporting such batteries in fire resistant containers and/or in restricted quantities at any single location on the aircraft.	PHMSA is considering amending the current Hazardous Materials Regulations (HMR) requirements on the transportation of lithium batteries to require packages of lithium batteries that are forbidden aboard passenger aircraft to be loaded aboard a cargo aircraft in such a manner that a crew member or other authorized person can access, handle or when size and weight permit, separate such packages from other cargo during flight. We are also considering amending the current HMR requirements by limiting the total amount of lithium batteries that may be stowed in an inaccessible cargo location. PHMSA hosted another battery enterprise meeting on April 11, 2008, to discuss options. PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified "Open, acceptable response." (NTSB Classification: Open, await response)
A-07-105	12/17/07	PHMSA	Until fire suppression systems are required on cargo-only aircraft, as asked for in Safety Recommendation A-07-99, require that cargo shipments of secondary batteries, including those contained in or packed with equipment, be transported in crew-accessible locations where portable fire suppression systems can be used.	PHMSA is considering amending the current Hazardous Materials Regulations (HMR) requirements on the transportation of lithium batteries to require packages of lithium batteries that are forbidden aboard passenger aircraft to be loaded aboard a cargo aircraft in such a manner that a crew member or other authorized person can access, handle or when size and weight permit, separate such packages from other cargo during flight. We are also considering amending the current HMR requirements by limiting the total amount of lithium batteries that may be stowed in an inaccessible cargo location. PHMSA hosted another battery enterprise meeting on April 11, 2008, to discuss options. PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified "Open, acceptable response."

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A-07-106	12/17/07	PHMSA	<p>Require aircraft operators that transport hazardous materials to immediately provide consolidated and specific information about hazardous materials on board an aircraft, including proper shipping name, hazard class, quantity, number of packages, and location, to on-scene emergency responders upon notification of an accident or incident.</p>	<p>(NTSB Classification: Open, await response)</p> <p>On March 25, 2003, PHMSA amended the Hazardous Materials Regulations (HMR) to require an aircraft operator to: (1) place on the notification of pilot-in-command (NOPC) or in the cockpit of the aircraft a telephone number that can be contacted during an in-flight emergency to obtain information about any hazardous materials aboard the aircraft; (2) retain and provide upon request a copy of the NOPC, or the information contained in it, at the aircraft operator's principal place of business, or the airport of departure, for 90 days, and at the airport of departure until the flight leg is completed; and (3) make readily accessible, and provide upon request, a copy of the NOPC, or the information contained in it, at the planned airport of arrival until the flight leg is completed. The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air provides the following guidance on the transfer of hazardous materials information between aircraft operators and emergency personnel: "In the event of an aircraft accident or serious incident, the operator of an aircraft carrying dangerous goods as cargo must provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the copy of the information to the pilot-in-command." We are considering amending the current HMR requirements on emergency response information to require that such information be provided "without delay" and plan to propose this change in an upcoming rulemaking.</p> <p>PHMSA is studying options for more effectively communicating emergency response information electronically and will be undertaking a research project under the Hazardous Materials Cooperative Research Program to study and demonstrate how electronic transmission of emergency response and shipping information can enhance safety.</p> <p>PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified "Open, acceptable response."</p> <p>(NTSB Classification: Open, await response)</p>
A-07-107	12/17/07	PHMSA	<p>Require commercial cargo and passenger operators to report to the Pipeline and Hazardous Materials Safety Administration all incidents involving primary and secondary lithium batteries, including those contained in or packed with equipment, that occur either on board or during loading or unloading operations and retain the failed items for evaluation</p>	<p>PHMSA agrees that a requirement to report all incidents involving lithium batteries transported by air, even those that are otherwise excepted from regulatory requirements, will provide useful information on the risks associated with such transportation and possible measures to reduce those risks. We plan to propose a comprehensive incident reporting requirement for batteries and battery-powered devices in an upcoming rulemaking. PHMSA hosted another battery enterprise</p>

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			purposes.	meeting on April 11, 2008, to discuss options. PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified "Open, acceptable response." (NTSB Classification: Open, await response)
A-07-108	12/17/07	PHMSA	Analyze the causes of all thermal failures and fires involving secondary and primary lithium batteries and, based on this analysis, take appropriate action to mitigate any risks determined to be posed by transporting lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items.	In July of 2007, PHMSA submitted an information paper to the United Nations Subcommittee of Experts on the Transport of Dangerous Goods summarizing the Department's list of known and suspected lithium battery incidents. The paper provided a root cause analysis outlining the likely causes of the incidents. As described in the informational paper, the four likely root causes of these incidents are: (1) external short circuits – exposed battery terminals that come into contact with metal objects; (2) internal short circuits – manufacturing defects, poor battery design, or damage to a battery; (3) improper use – problems with the interaction between the battery and the device it charges or the battery and its charging device; and (4) a non-compliance situation – batteries that were not manufactured to basic industry standards and regulatory requirements, undeclared shipments, improper packaging, or poor handling. As part of the informational paper we requested comments from members of the subcommittee as to the best way to reduce the types of incidents reported in the paper. We intend to develop further regulatory and non-regulatory actions based on the analysis of the incidents and comments received as a result of this paper. PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified "Closed, acceptable response." (NTSB Classification: Open, await response)
A-07-109	12/17/07	PHMSA	Eliminate regulatory exemptions for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries (no more than 8 grams equivalent lithium content) until the analysis of the failures and the implementation of risk-based requirements asked for in Safety Recommendation A-07-108 are completed.	On August 9, 2007, PHMSA published a final rule to tighten the safety standards for transportation of lithium batteries, including both primary (non-rechargeable) and secondary (rechargeable) lithium batteries (HM-224C and HM-224E; 72 FR 44929). The final rule continues in force a limited ban on the transportation of certain lithium batteries as cargo aboard passenger aircraft, initially adopted in an interim final rule published on December 15, 2004. In addition, the final rule strengthens standards for the testing, handling, and packaging of lithium batteries, in each case to reduce the likelihood or consequence of a lithium battery-related fire in transportation. The August 9, 2007, final rule also adopts new testing, handling, and packaging requirements for both primary and secondary lithium batteries that are consistent with

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				<p>requirements in the UN Recommendations on the Transport of Dangerous Goods and the International Civil Aviation Organization’s Technical Instructions for the Safe Transportation of Dangerous Goods by Air. Specifically, the final rule revises an exception for small lithium batteries to require testing in accordance with the United Nations Manual of Tests and Criteria to ensure they can withstand conditions encountered during transportation; large- and medium-size lithium batteries are already subject to such testing. In addition, the final rule imposes enhanced packaging and hazard communication requirements for small and medium-size lithium batteries, including package marking and shipping documentation requirements to indicate that the package contains lithium batteries and special procedures must be followed in the event the package is damaged. We are currently evaluating the potential costs and benefits that would result from eliminating the remaining regulatory exceptions applicable to small lithium batteries.</p> <p>PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified “Open, acceptable response.”</p> <p>(NTSB Classification: Open, await response)</p>
A-08-1	01/07/08	PHMSA	<p>In collaboration with air carriers, manufacturers of lithium batteries and electronic devices, air travel associations, and other appropriate government and private organizations, establish a process to ensure wider, highly visible, and continuous dissemination of guidance and information to the air-traveling public, including flight crews, about the safe carriage of secondary (rechargeable) lithium batteries or electronic devices containing these batteries on board passenger aircraft.</p>	<p>PHMSA is coordinating with FAA to discuss our joint efforts and our response to this recommendation. PHMSA hosted another battery enterprise meeting on April 11, 2008, to discuss options.</p> <p>PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified “Open, acceptable response.”</p> <p>(NTSB Classification: Open, await response)</p>
A-08-2	01/07/08	PHMSA	<p>In collaboration with air carriers, manufacturers of lithium batteries and electronic devices, air travel associations, and other appropriate government and private organizations, establish a process to periodically measure the effectiveness of your efforts to educate the air-traveling public, including flight crews, about the safe carriage of secondary (rechargeable) lithium batteries or electronic devices containing these batteries on board passenger aircraft.</p>	<p>PHMSA is coordinating with FAA to discuss our joint efforts and our response to this recommendation. PHMSA hosted another battery enterprise meeting on April 11, 2008, to discuss options.</p> <p>PHMSA sent a letter to the NTSB on March 28, 2008, requesting this recommendation be classified “Open, acceptable response.”</p> <p>(NTSB Classification: Open, await response)</p>
I-02-01	07/16/02	PHMSA	<p>Develop, with the assistance of the Environmental Protection Agency (EPA) and Occupational Safety</p>	<p>PHMSA has analyzed the risk due to bulk loading and unloading operations over the past decade and has concluded that roughly one-</p>

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			and Health Administration (OSHA), safety requirements that apply to the loading and unloading of railroad tank cars, highway cargo tanks, and other bulk containers that address the inspection and maintenance of cargo transfer equipment, emergency shutdown measures, and personal protection requirements.	<p>quarter to one-half of the overall hazardous materials transportation risk may be attributable to loading and unloading operations. PHMSA hosted a workshop on June 14, 2007, that brought stakeholders together for conceptual discussions on the risks associated with the loading and unloading issues and the range of actions which could be taken by the government and industry to address the risks. On January 4, 2008, we published a notice to solicit information and comments on proposed recommended practices for loading and unloading operations involving bulk packagings used to transport hazardous materials. Based on information and comments received, we plan to consider strategies for enhancing the safety of bulk loading and unloading operations, including whether additional regulatory requirements may be necessary. In addition, we are soliciting comments on whether there are existing gaps and/or overlaps in regulations promulgated by PHMSA, OSHA, EPA and the USCG that adversely affect the safety of these operations, and how any identified gaps and/or overlaps in Federal regulations should be addressed.</p> <p>(NTSB Classification: Open, unacceptable response)</p>
I-02-02	07/16/02	PHMSA	Implement, after the adoption of safety requirements developed in response to Safety Recommendation I-02-01, an oversight program to ensure compliance with these requirements.	<p>PHMSA has analyzed the risk due to bulk loading and unloading operations over the past decade and has concluded that roughly one-quarter to one-half of the overall hazardous materials transportation risk may be attributable to loading and unloading operations. PHMSA hosted a workshop on June 14, 2007, that brought stakeholders together for conceptual discussions on the risks associated with the loading and unloading issues and the range of actions which could be taken by the government and industry to address the risks. On January 4, 2008, we published a notice to solicit information and comments on proposed recommended practices for loading and unloading operations involving bulk packagings used to transport hazardous materials. Based on information and comments received, we plan to consider strategies for enhancing the safety of bulk loading and unloading operations, including whether additional regulatory requirements may be necessary. In addition, we are soliciting comments on whether there are existing gaps and/or overlaps in regulations promulgated by PHMSA, OSHA, EPA and the USCG that adversely affect the safety of these operations, and how any identified gaps and/or overlaps in Federal regulations should be addressed.</p> <p>(NTSB Classification: Open, unacceptable response)</p>
I-07-1	6/27/07	PHMSA	Develop standards for the safe transportation of partially pressurized aluminum cylinders by, for example, requiring the addition of temperature-	<p>PHMSA recently amended the Hazardous Materials Regulations to require the set pressure for Pressure Relief Devices (PRDs) installed on cylinders used to transport flammable and poisonous gases to be set at</p>

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			<p>actuated pressure relief devices or the reduction of residual pressure to safe limits, to ensure that such cylinders do not experience overpressure failure when exposed to a fire.</p>	<p>the cylinder test pressure with a tolerance of +0/-10%. This action will extend the time before PRDs actuate without compromising the strength of the cylinder or significantly increasing the probability that the cylinder will burst because of extreme pressure build-up. We have an active rulemaking project to consider applying this requirement to cylinders containing oxidizing gases such as oxygen, which should further enhance safety for both partially pressurized and full cylinders. PHMSA does not believe that the use of temperature-activated PRDs would have reduced the probability of a cylinder rupture in the Wilmer, Texas incident. PHMSA will continue to work with the Compressed Gas Association to explore possible options for enhancing oxidizing and flammable gas cylinder survivability in various fire situations.</p> <p>PHMSA sent a letter to the NTSB on January 22, 2008, requesting this recommendation be classified "Open, acceptable response."</p> <p>(NTSB Classification: Open, await response)</p>
I-07-2	6/27/07	PHMSA	<p>Issue guidance to, at a minimum, the Fraternal Order of Police, International Association of Chiefs of Police, International Association of Fire Chiefs, International Association of Fire Fighters, National Association of State EMS Officials, National Sheriffs' Association, and National Volunteer Fire Council, describing the risk of overpressure failure of partially pressurized aluminum cylinders and the steps that should be taken to protect responders and the general public from a vehicle fire when aluminum cylinders are present.</p>	<p>PHMSA is working with the emergency response community to develop and disseminate guidance and training material. Soon after the Wilmer, Texas accident we developed and issued guidance to bus and train operators to assure that medical oxygen being transported for passengers' personal use is handled and transported safely. We are partnering with the International Association of Fire Chiefs to develop a Hazmat Fusion Center, a shared information network for first responders. A key function of the Hazmat Fusion Center will be information dissemination, including updated hazardous materials training and guidance material for first responders. We are also working with the National Fire Academy to review the compressed gas cylinder training that is part of the Hazardous Material Responder curriculum. We will also work with other emergency response organizations, such as the National Association of State Fire Marshals, and industry groups, such as the Compressed Gas Association, to develop and disseminate guidance and training information.</p> <p>PHMSA sent a letter to the NTSB on January 22, 2008, requesting this recommendation be classified "Open, acceptable response."</p> <p>(NTSB Classification: Open, await response)</p>

**National Transportation Safety Board (NTSB)
and
DOT Office of the Inspector General (OIG):**

**Open Safety Recommendations on
Pipeline and Hazardous Materials Safety**

**Appendix B:
Recent Responses to NTSB Recommendations**

**U.S. Department of Transportation
January 2008**

Appendix B: Recent Responses to NTSB Recommendations

This Appendix includes the most recent communications to the NTSB on the open NTSB recommendations as requested by the Norman Y. Mineta Research and Special Programs Improvement Act. This documentation reflects only the current status of record; it does not include ongoing interim formal and informal communications between DOT and NTSB on these recommendations. In several cases, the documentation that is provided updates the status on more than one recommendation.

NTSB Rec. Number	Date Issued	Date of Most Recent Response	Documentation at Pages:
P-90-29	10/01/90	02/07/08	2-26
P-98-02	04/30/98	07/31/07	27-36
P-99-12	06/01/99	07/31/07	27-36
P-01-02	06/22/01	07/31/07	27-36
P-04-01	07/01/04	07/31/07	27-36
P-04-02	07/01/04	07/31/07	27-36
P-04-03	07/01/04	07/31/07	27-36
P-05-1	12/23/05	07/31/07	27-36
P-05-2	12/23/05	07/31/07	27-36
P-05-3	12/23/05	07/31/07	27-36
P-05-4	12/23/05	07/31/07	27-36
P-05-5	12/23/05	07/31/07	27-36
P-07-7	5/25/07	10/23/07	37-38
P-07-8	5/25/07	10/23/07	37-38
P-07-9	5/25/07	10/23/07	37-38
R-89-48	07/14/89	07/31/07	27-36
R-89-53	07/14/89	07/31/07	27-36
R-92-22	12/31/92	07/31/07	27-36
R-92-23	12/31/92	07/31/07	27-36
R-01-02	03/12/01	07/31/07	27-36
R-01-03	03/12/01	07/31/07	27-36
R-04-04	03/15/04	10/24/06	39-42
R-04-05	03/15/04	10/24/06	39-42
R-04-06	03/15/04	10/24/06	39-42
R-04-07	03/14/04	10/24/06	39-42
R-04-10	12/15/04	07/31/07	27-36
R-05-17	12/12/05	10/24/06	39-42
R-07-04	04/25/07	01/22/08	43-46
R-07-05	04/25/07	01/22/08	43-46
H-92-1	03/20/92	07/31/07	27-36
H-98-27	05/18/98	07/31/07	27-36
H-02-23	09/26/02	07/31/07	27-36
H-02-24	09/26/02	07/31/07	27-36
H-04-23	07/01/04	07/31/07	27-36
A-07-104	12/17/07	03/28/08	47-52
A-07-105	12/17/07	03/28/08	47-52
A-07-106	12/17/07	03/28/08	47-52
A-07-107	12/17/07	03/28/08	47-52
A-07-108	12/17/07	03/28/08	47-52
A-07-109	12/05/07	03/28/08	47-52
A-08-1	01/07/08	03/28/08	53-56
A-08-2	01/07/08	03/28/08	53-56
I-02-01	07/16/02	07/31/07	27-36
I-02-02	07/16/02	07/31/07	27-36
I-07-01	06/27/07	01/22/08	57-61
I-07-02	06/27/07	01/22/08	57-61



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

FEB - 7 2008

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

Dear Mr. Chairman:

This letter provides an updated response and requests the National Transportation Safety Board (NTSB) close Safety Recommendation P-90-29. Safety Recommendation P-90-29 recommends PHMSA develop submerged pipeline inspection and reburial requirements in areas subject to damage by surface vessels and their operations.

On August 17, 2004, PHMSA notified the NTSB that a final rule requiring periodic inspections had been published in the Federal Register. The final rule became effective August 10, 2005. The final rule requires operators of hazardous liquid and natural gas pipelines to prepare and follow procedures to identify their pipelines in the Gulf of Mexico that are at risk of being a hazard to navigation. Each operator is required to conduct periodic inspections of these lines based on the identified risk.

The NTSB responded with a letter dated December 20, 2004 expressing concern the rule did not include the offshore pipelines in areas other than the Gulf of Mexico. NTSB asked us to conduct further studies of offshore pipelines outside the Gulf of Mexico, to determine if these lines posed hazards to navigation.

Accordingly, PHMSA further examined reports of all offshore pipeline incidents within the 15-foot depth contour line. The study involved four areas of investigation:

- (1) Review the extent of incidents in coastal states involving vessels striking pipelines;
- (2) Review of Coastal Zone Management Programs and the USACE permitting process for the applicability of requirements to inspect underwater pipelines;
- (3) Review of six data sources within PHMSA and the USCG for vessel incidents involving pipeline hazards to navigation and pipeline incidents involving vessels or their equipment; and
- (4) Determination of the applicable area of the study, including the inland extent of tidal influence.

Appendix B

Defining the study area included calculating the mileage of pipelines within the area of concern. The study only examined pipelines subject to PHMSA regulatory requirements. Enclosed is the final report, "Study on Burial of Submerged Pipelines," dated November 30, 2006.

According to the study, there were 58 reported instances of a vessel or its equipment striking an offshore submerged pipeline and 64 reported instances of a submerged pipeline hazard to navigation between 1990 and 2005. All incidents occurred in the Gulf of Mexico. Seeking any further information on experiences with offshore pipelines which may have been missing from the study data, PHMSA notified the public of the results of the study through a Federal Register notice with request for comment published April 4, 2007. PHMSA did not receive any further information or comment on the study.

PHMSA anticipates there will be changes in the number of pipelines in the offshore environment resulting from the projected increase of Liquefied Natural Gas (LNG) import facilities. PHMSA will work with the Federal Energy Regulatory Commission (FERC) and other oversight agencies on a case-by-case basis to develop safety measures that should be considered prior to granting permits for right-of-ways in the offshore shallow waters. PHMSA regularly provides pre-siting safety reviews for permitting agencies. There have been instances in the past where FERC has added conditions to approval for a permit based on PHMSA advice on the need for additional protections that are site specific. PHMSA will also continue to monitor the hazard to navigation risk for all submerged LNG, natural gas, and hazardous liquid pipelines and to seek ways to ensure their adequate protection.

PHMSA requests the NTSB classify Safety Recommendation P-90-29 as "Closed-Acceptable Action." If you have questions, please feel free to contact me at (202) 366-4433.

Sincerely,



Stacey L. Gerard
Assistant Administrator/ Chief Safety Officer

Enclosure:
Study on Burial of Submerged Pipelines