UNITED STATES DEPARTMENT OF TRANSPORTATION
Pipeline and Hazardous Materials Safety Administration

Hearing on

An Overview of the Hazardous Materials Safety Program

Before the
House Committee on Transportation and Infrastructure
Subcommittee on Railroads, Pipelines
and Hazardous Materials

Written Statement of the
U.S. Department of Transportation

WRITTEN STATEMENT
OF
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BEFORE THE 111TH CONGRESS
SUBCOMMITTEE ON RAILROADS, PIPELINES AND HAZARDOUS MATERIALS
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
UNITED STATES HOUSE OF REPRESENTATIVES
May 14, 2009

Introduction

Chairman Oberstar, Chairwoman Brown, Ranking Member Shuster and distinguished Members of the Committee and Subcommittee, on behalf of the Secretary of Transportation, I am Cynthia Douglass, Acting Deputy Administrator of the Pipeline and Hazardous Materials Safety Administration (PHMSA). I want to thank you for the invitation to appear today to provide an overview of PHMSA's recent accomplishments, our current priorities and initiatives and our vision for the future of the hazardous materials transportation safety program.

PHMSA's Approach to Hazardous Materials Safety

PHMSA is a small agency with an enormous mission. PHMSA's Office of Hazardous Materials Safety is responsible for a comprehensive, nationwide program designed to protect the nation from the risks to life, health, property, and the environment inherent in the commercial transportation of hazardous materials.

PHMSA is the lead Federal agency in regulating the safe transport of up to 1 million daily movements of hazardous materials, totaling up to 20 % of all freight tonnage shipped each year in the United States. Hazardous materials regulated by the Department include explosive, poisonous, corrosive, flammable, and radioactive substances. Our work touches the lives of every American -- the energy we use in our vehicles, at work, and in our homes; and ingredients in virtually all commercial products we use, the chemicals that treat our water, fertilize our crops, create our medicines, and manufacture our clothing -- are all essential to our quality of life. Many of these shipments require transfer between different modes of transportation. Hazardous materials are essential to our citizens and to our economy.

In our role as the nation's lead hazardous material safety transportation agency, PHMSA is responsible for the development and implementation of targeted, consistent, and uniform hazardous materials regulations across all modes of transportation. Authority for enforcing these regulations is shared with our sister safety agencies in DOT and the U.S. Coast Guard (USCG).

Safety continues to be Transportation Secretary LaHood's highest priority, and it is the first priority for the Department's hazardous materials safety program. Overall, the safety record of commercial hazardous materials transportation is excellent and improving. We have seen a steady decline of serious incidents over the last 10 years, 1998-2008.

Last year, we celebrated the 100th anniversary of the hazardous materials transportation safety program, which originated with enactment of the Transportation of Explosives and Other Dangerous Articles Act (specifically, "An Act to promote the safe transportation in interstate commerce of explosives and other dangerous articles") on May 30, 1908.

Since 1908, the Federal program to minimize the risks associated with the commercial transportation of hazardous materials has evolved from its initial focus on the regulation of explosives to a broad and comprehensive safety and security program applicable to a wide variety of materials and articles shipped by multiple modes of transport across interstate and international boundaries, and overseen by an array of Federal and state agencies.

PHMSA's primary goal for the Department's hazardous materials safety program is to reduce the risks inherent in the commercial transportation of hazardous materials by all modes. To this end, we identify and evaluate systemic risks and devise strategies to address those risks. First, we have in place comprehensive regulations for the safe and secure transportation of hazardous materials. Second, we assist hazardous materials stakeholders to understand the hazardous materials regulations and how to comply with them. Third, we identify those persons who refuse or neglect to comply with safety and security regulations and stop their illegal or noncompliant activities. Finally, we assist the nation's response community to mitigate potential hazardous materials incidents and respond to hazardous materials transportation emergencies.

We are unique among DOT agencies in that we work across DOT Operating Administrations to ensure consistency in administering hazardous materials safety programs among the modes of transportation. Because hazardous materials move by air, land, and water, we continuously coordinate activities with each of our DOT modal partners: the Federal Aviation Administration (FAA); the Federal Railroad Administration (FRA); and the Federal Motor Carrier Safety Administration (FMCSA). Additionally, PHMSA works very closely with the Coast Guard.

We also work with the Department of Homeland Security (DHS)/Transportation Security Administration (TSA) and USCG; Department of Labor (DOL)/Occupational Safety and Health Administration (OSHA); Department of Justice (DOJ)/Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF); Department of Health and Human Services (HHS)/Centers for Disease Control and Prevention (CDC); Department of Agriculture (USDA)/Animal and Plant Health Inspection Service (APHIS); Department of State (DOS); Department of Defense (DOD); Department of Commerce (DOC); Environmental Protection Agency (EPA); Consumer Product Safety Commission (CPSC); U.S. Postal Service (USPS); and the Nuclear Regulatory Commission (NRC) to achieve our safety

goals. We respond to the recommendations from the National Transportation Safety Board (NTSB) and the Chemical Safety and Hazard Investigation Board (CSB).
In accordance with our authorizing statute, PHMSA strives to align domestic transportation requirements with international transport standards and requirements to the extent practicable. Harmonization of domestic and international standards becomes increasingly important as the volume of hazardous materials transported in international commerce grows and the cost of conducting international commerce increases. The harmonization of hazardous materials standards facilitates international trade by minimizing the costs and other burdens of complying with multiple or inconsistent safety requirements for transportation of hazardous materials to and from the United States. By facilitating compliance with international standards, harmonization also tends to enhance safety for international movements, but only if the international standards themselves provide an appropriate level of safety. To that end, PHMSA actively participates in the development of international standards for the transportation of hazardous materials, frequently advocating the adoption in international standards of improved safety requirements. PHMSA chairs the United Nations Subcommittee of Experts on the Transportation of Dangerous Goods. PHMSA works closely with our counterparts on the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO).

Enhancing Safety by Reducing Risk

The Department's hazardous materials transportation safety program enhances safety by focusing on risk reduction in transportation. The agency's program is challenged to quickly identify emerging risks and develop innovative, flexible, and effective safety controls to address those risks. We target both frequent incidents and potential high consequence accidents. Significant safety and economic consequences flow from our decisions.

In keeping with PHMSA risk-based approach to enhancing hazardous materials transportation safety, we have identified high risk materials and operations and are developing strategies to address those risks. In order of priority, these risks include:

- Fires onboard commercial aircraft;
- Releases of materials that are poisonous by inhalation (PIH materials), such as chlorine and anhydrous ammonia from rail tank cars and tank trucks;
- Rollovers of tank trucks carrying flammable liquids such as gasoline;
- Bulk loading and unloading operations; and
- Undeclared shipments of hazardous materials.

To address the risk of fire on board commercial aircraft, we are focusing on strengthening safety controls applicable to the transportation of lithium batteries. For example, in 2006, we issued a final rule to finalize an interim requirement prohibiting the transportation of certain lithium batteries as cargo on passenger aircraft. The rule addressed an immediate safety threat. PHMSA and FAA, working with fire-safety experts at FAA's Technical Center in Atlantic City, New Jersey, found that if a shipment of primary lithium batteries caught fire in flight, current aircraft cargo fire-suppression systems would not be able to

extinguish the fire. This final rule also adopted enhanced testing, packaging, and hazard communication requirements for shipments of lithium batteries. Based on recommendations from NTSB and our own analysis of incident data, including incidents occurring outside of transportation, we have initiated a rulemaking project to develop additional measures to enhance the safety of lithium battery shipments on aircraft as well as simplify the regulations to enable better understanding by all parties that handle lithium batteries in transportation.

Heightening public awareness of the hazards associated with the air transportation of lithium batteries, including batteries contained in electronic devices, is a key component of a comprehensive strategy to enhance safety and reduce incidents. Since 2007, we have been working with air carriers, battery manufacturers, air travel associations and other government agencies to educate the public about potential safety risks and measures that will reduce or eliminate those risks.

One of our visible programs to promote battery safety is the SafeTravel Web site, which includes guidance and information on how to travel safely with batteries and battery-powered devices. We have also been working with the major airlines, travel and battery industries to provide SafeTravel information for ticketed passengers and frequent flyers, and place printed battery safety materials in seat pockets on passenger planes. We have recorded several million hits on our SafeTravel Web site.

We are also addressing the unique safety risks posed by PIH materials which are transported in large quantities by rail and truck. About 100,000 carloads of PIH chemicals are shipped by rail each year. In the past year, PHMSA issued two final rules to reduce the risks posed by the rail transportation of hazardous materials. The first, published late in 2008 in cooperation with FRA, requires rail carriers to assess routing alternatives available to transport certain explosive, radioactive and PIH materials, and based on this analysis utilize the safest and most secure routes. The second, published January, 2009 also in cooperation with FRA, establishes more rigorous design standards for tank cars used to transport PIH materials to enhance the ability of these tank cars to survive accident conditions without loss of lading. The standards established in this rule are intended as interim standards which will enhance the accident survivability of newly constructed PIH tank cars as compared to existing PIH tank cars, while at the same time providing tank car owners continued flexibility in car selection. Adoption of these standards will ensure the ongoing availability of tank cars suitable for the transportation of PIH materials while PHMSA and FRA complete research and testing on advanced tank car design to validate and implement a more stringent performance standard.

PHMSA is also taking steps to reduce the risks associated with cargo tank rollover accidents, bulk loading and unloading operations, and undeclared hazmat shipments. Up to 2,000 cargo tank motor vehicle accidents occur each year, a third of which involve rollovers. PHMSA, in cooperation and coordination with NHTSA and FMCSA, is examining improved training programs and electronic stability control systems as potential solutions to minimize cargo tank motor vehicle rollovers.

Undeclared shipments of hazardous materials are predominately aerosols and flammable liquids (e.g. paint and paint related materials), as well as dry ice, perfume products and cigarette lighters. These types of hazardous materials are a growing problem especially with the increased use of Internet auction sites like Amazon.com and product returns to large retail centers like Wal-Mart. PHMSA strives to communicate with the operating modes to increase the awareness of undeclared shipments.

We are using a risk-based approach to develop targeted enforcement strategies to enhance compliance and reduce incidents. Every month PHMSA's enforcement staff develops a list of companies that present significant compliance problems based on an analysis of the number and types of violations, recent serious incidents, and other indicators of serious non-compliance. These companies are targeted for in-depth inspection and enforcement efforts. In addition, PHMSA established a Systems Integrity Safety Program (SISP) to identify companies with significant safety or compliance problems and provide them with targeted and focused assistance to address those problems. Focusing our enforcement effort on the worst violators begins the process of turning them around and bringing them into compliance.

The acquiring of accurate data is the underpinning for all of the Department's risk reductions efforts. In October 2008, we celebrated the launch of the Hazmat Intelligence Portal (HIP), a data warehouse and business intelligence tool. The Internet portal allows users to access hazardous materials information available from 27 separate government data bases in one easy-to-use portal. This launch was made possible by the efforts of our industry partners and the Federal team that included the One-DOT team of FAA, FMCSA, and FRA; USCG as well as DHS/TSA.

The HIP helps us identify high risk hazardous materials shippers and carriers and focus our enforcement efforts, develop training and outreach opportunities, and prioritize and target resources using integrated and easy-to-use dashboards of information. The HIP Team was recently awarded the 2009 Interagency Resources Management Conference (IRMCO) Award for "Outstanding Inter-Organizational Performance and Achievement." Sponsored by the General Services Administration the prestigious IRMCO Award is presented each year to a single individual and team who have demonstrated exceptional ability to operate across organizational boundaries to improve the Government's services to its citizens.

Strengthening Oversight and Emergency Response Capabilities

Strengthening emergency response capabilities is a high priority for PHMSA. We are working on a broad front with the emergency response community to ensure that it has sufficient resources to plan for and respond to hazardous materials transportation emergencies. The focus is on the training of firefighters and preparedness of state and local communities.

PHMSA enjoys a strong partnership with the International Association of Fire Chiefs (IAFC) in addressing hazardous materials incidents. Through a partnership with the IAFC, PHMSA has established the National Hazardous Materials Fusion Center. The National

Hazardous Materials Fusion Center will provide a secure, web-based portal to serve as a data and information network for hazardous materials teams; first responders; Federal, state and local agencies; and the private sector. Through this portal, firefighters and Federal agencies will share critical information to enhance hazardous materials responder safety and improve decision-making for the prevention and mitigation of hazardous materials incidents. With the increased production, manufacturing, and transportation of hazardous materials, with thousands more introduced each year, it is imperative that first responders have the knowledge and resources to deal with accidents effectively.

The Hazardous Materials Emergency Preparedness (HMEP) Grants Program is the only federally funded grant program available solely for the training of responders in hazardous materials and community preparedness planning. The program provides funding to all 50 states, U.S. territories and a number of Native American Tribes. Funded by fees paid by hazardous materials shippers and carriers, the HMEP Grants Program provides a total of $28 million to assist state and tribal governments to develop, improve, and implement emergency plans; train public sector hazardous materials emergency response employees to respond to accidents and incidents involving hazardous materials; determine flow patterns of hazardous materials through communities; and determine the need within a state for regional hazardous materials emergency response teams. A total of $4 million in HMEP grants were also awarded to the International Brotherhood of Teamsters, the International Association of Fire Fighters, the National Labor College, and the International Association of Machinists and Aerospace Workers to provide for the training of hazardous materials safety instructors and employees who handle these materials in transportation. We are currently engaged in a comprehensive review of the HMEP Grants Program to ensure that it is effectively meeting emergency response planning and training needs and to identify ways to increase its effectiveness. We are hoping to complete that review by later this year.

The Emergency Response Guidebook (ERG) was the first tool developed to assist emergency responders in responding to hazardous materials transportation incidents. Every four years, PHSMA and our partners in Canada and Mexico publish an updated version of the Emergency Response Guidebook. The Guidebook provides first responders with a guide for initial actions to be taken in those critical first minutes after an incident to protect the public and to mitigate potential consequences. Since 1980, we have published and distributed free to first responders over 11 million copies of the ERG. PHMSA recently partnered with the National Library of Medicine to put the ERG on the Internet and to make the ERG available to emergency responders on smart phones and Personal Digital Assistants (PDAs).

Use of Technology to Enhance Safety

We are leveraging technology to enhance safety and improve the effectiveness and efficiency of our programs. We are expanding our use of Internet websites and data portals, utilizing smart phones and PDAs to facilitate communications with emergency responders, and employing data warehouse and business intelligence tools to better understand hazardous materials safety risks and target strategies to address those risks. As

we embark on the program's second century, we are committed to improving the quality, reliability, and timeliness of information guiding all parts of the safety control system, including hazard communication. As the private sector and government agencies transition to paperless systems, adherence to longstanding paper-based requirements for hazardous materials transportation places an increasing burden on the system, contributing to freight delays and congestion. Deploying new communication technologies holds the promise of improving safety, even as it reduces regulatory burdens and improves the performance of the transportation system.

We believe that leveraging the power of personal computing, wireless infrastructure, and web-based technologies will enhance the safety and security of the American people by reducing risk, congestion, and the potential of shipments becoming diverted, lost, or misused.

Building for the Future

Looking to the future, we will continue to explore ways to enhance system integrity, strengthen oversight and enforcement, foster healthy partnerships with emergency responders, promote the use of new technologies to improve safety and efficiency, and improve the data that is the underpinning for all of our safety programs. Our focus is to adopt creative approaches to build a renewed safety culture in the hazardous materials transportation industry while allowing for more efficient and effective transportation of hazardous materials and reducing regulatory obstacles to the extent consistent with our safety goals.

We have made significant progress in addressing NTSB recommendations to enhance the safety of lithium battery shipments in the air mode; improve the crashworthiness of rail tank cars; address the need for the immediate availability of information on hazardous materials shipments for transport workers and emergency responders; identify and address safety risks related to the loading and unloading of bulk hazardous materials; strengthen the crash-resistance of tube trailers (semi-trailers carrying compressed gas cylinders); minimize the risks involved with the carriage of hazardous materials in wetlines on cargo tank motor vehicles; and upgrade the safety of oxygen cylinders. We will continue to work with NTSB to ensure the continued safe transportation of hazardous materials.

PHMSA is expanding its emergency response strategy to expand training to reach more of the 800,000 volunteer firefighters who carry the responsibility for responding to emergencies in our local communities. We are developing new emergency response protocols in cooperation with the International Association of Fire Chiefs through the new National Hazardous Materials Fusion Center.

PHMSA is also leading the development of more stringent safety standards for the transport of dangerous goods through the UN Subcommittee of Experts on the Transport of Dangerous Goods, the ICAO committee on dangerous goods, and the IMO. With our international partners, we are pursuing initiatives to enhance the safety of lithium battery shipments, consumer and other limited quantity materials, marine pollutants, explosives

transport by air, and packagings such as intermediate bulk containers. PHMSA has published a Five-Year Plan for enhancing international standards.

PHMSA is making use of the power of new computing, wireless, and Internet technologies in the analysis of risk, understanding the incidents that have occurred, the sharing of data and information across Federal agencies that have hazardous materials responsibilities, and the planning of enforcement programs. PHMSA has a long-term strategy for the electronic communication of hazardous materials shipping information including the transmission of emergency response information to first responders.

PHMSA is working across many Federal and state government agencies in ensuring that the rules for the commercial transportation of hazardous materials are consistent and, consistent with risk, applied uniformly across the various modes whether in aviation, over the road, on the rails or on the water. This arrangement has worked well for the past three decades, and we are positioned to strengthen this role even further as we look to the future.

Closing

We look forward to working with the members of this Subcommittee, the Congress and our stakeholders as we embark on a serious and open discussion with all interested parties to further enhance the safe and secure transportation of hazardous materials.

Mr. Chairman and Madam Chairwoman, I commend you and the Members of the Committee and Subcommittee for your leadership on this very important issue. I assure the Members of this Committee that the Administration, Transportation Secretary LaHood and the dedicated men and women of PHMSA share your strong commitment to improving safety, reliability and public confidence in our nation's safe transport of hazardous materials.

Thank you again for this opportunity today. I am happy to take your questions.