

**REAUTHORIZATION OF THE  
DEPARTMENT OF  
TRANSPORTATION'S  
HAZARDOUS MATERIALS SAFETY  
PROGRAM**

---

---

(111-33)

**HEARING**

BEFORE THE  
SUBCOMMITTEE ON

RAILROADS, PIPELINES, AND HAZARDOUS  
MATERIALS  
OF THE

COMMITTEE ON  
TRANSPORTATION AND  
INFRASTRUCTURE  
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

MAY 14, 2009

Printed for the use of the  
Committee on Transportation and Infrastructure



U.S. GOVERNMENT PRINTING OFFICE

49-952 PDF

WASHINGTON : 2009

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

JAMES L. OBERSTAR, Minnesota, *Chairman*

NICK J. RAHALL, II, West Virginia, *Vice Chair*  
PETER A. DeFAZIO, Oregon  
JERRY F. COSTELLO, Illinois  
ELEANOR HOLMES NORTON, District of Columbia  
JERROLD NADLER, New York  
CORRINE BROWN, Florida  
BOB FILNER, California  
EDDIE BERNICE JOHNSON, Texas  
GENE TAYLOR, Mississippi  
ELIJAH E. CUMMINGS, Maryland  
ELLEN O. TAUSCHER, California  
LEONARD L. BOSWELL, Iowa  
TIM HOLDEN, Pennsylvania  
BRIAN BAIRD, Washington  
RICK LARSEN, Washington  
MICHAEL E. CAPUANO, Massachusetts  
TIMOTHY H. BISHOP, New York  
MICHAEL H. MICHAUD, Maine  
RUSS CARNAHAN, Missouri  
GRACE F. NAPOLITANO, California  
DANIEL LIPINSKI, Illinois  
MAZIE K. HIRONO, Hawaii  
JASON ALTMIRE, Pennsylvania  
TIMOTHY J. WALZ, Minnesota  
HEATH SHULER, North Carolina  
MICHAEL A. ARCURI, New York  
HARRY E. MITCHELL, Arizona  
CHRISTOPHER P. CARNEY, Pennsylvania  
JOHN J. HALL, New York  
STEVE KAGEN, Wisconsin  
STEVE COHEN, Tennessee  
LAURA A. RICHARDSON, California  
ALBIO SIRES, New Jersey  
DONNA F. EDWARDS, Maryland  
SOLOMON P. ORTIZ, Texas  
PHIL HARE, Illinois  
JOHN A. BOCCIERI, Ohio  
MARK H. SCHAUER, Michigan  
BETSY MARKEY, Colorado  
PARKER GRIFFITH, Alabama  
MICHAEL E. McMAHON, New York  
THOMAS S. P. PERRIELLO, Virginia  
DINA TITUS, Nevada  
HARRY TEAGUE, New Mexico

JOHN L. MICA, Florida  
DON YOUNG, Alaska  
THOMAS E. PETRI, Wisconsin  
HOWARD COBLE, North Carolina  
JOHN J. DUNCAN, Jr., Tennessee  
VERNON J. EHLERS, Michigan  
FRANK A. LoBIONDO, New Jersey  
JERRY MORAN, Kansas  
GARY G. MILLER, California  
HENRY E. BROWN, Jr., South Carolina  
TIMOTHY V. JOHNSON, Illinois  
TODD RUSSELL PLATTS, Pennsylvania  
SAM GRAVES, Missouri  
BILL SHUSTER, Pennsylvania  
JOHN BOOZMAN, Arkansas  
SHELLEY MOORE CAPITO, West Virginia  
JIM GERLACH, Pennsylvania  
MARIO DIAZ-BALART, Florida  
CHARLES W. DENT, Pennsylvania  
CONNIE MACK, Florida  
LYNN A WESTMORELAND, Georgia  
JEAN SCHMIDT, Ohio  
CANDICE S. MILLER, Michigan  
MARY FALLIN, Oklahoma  
VERN BUCHANAN, Florida  
ROBERT E. LATTA, Ohio  
BRETT GUTHRIE, Kentucky  
ANH "JOSEPH" CAO, Louisiana  
AARON SCHOCK, Illinois  
PETE OLSON, Texas

SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS  
MATERIALS

CORRINE BROWN, Florida *Chairwoman*  
DINA TITUS, Nevada  
HARRY TEAGUE, New Mexico  
NICK J. RAHALL II, West Virginia  
JERROLD NADLER, New York  
ELIJAH E. CUMMINGS, Maryland  
GRACE F. NAPOLITANO, California  
JASON ALTMIRE, Pennsylvania  
TIMOTHY J. WALZ, Minnesota  
MICHAEL A. ARCURI, New York  
CHRISTOPHER P. CARNEY, Pennsylvania  
ALBIO SIRES, New Jersey  
MARK H. SCHAUER, Michigan  
BETSY MARKEY, Colorado  
MICHAEL E. McMAHON, New York  
THOMAS S. P. PERRIELLO, Virginia  
PETER A. DeFAZIO, Oregon  
JERRY F. COSTELLO, Illinois  
BOB FILNER, California  
EDDIE BERNICE JOHNSON, Texas  
LEONARD L. BOSWELL, Iowa  
RICK LARSEN, Washington  
MICHAEL H. MICHAUD, Maine  
DANIEL LIPINSKI, Illinois  
STEVE COHEN, Tennessee  
LAURA A. RICHARDSON, California  
JAMES L. OBERSTAR, Minnesota  
*(ex officio)*

BILL SHUSTER, Pennsylvania  
THOMAS E. PETRI, Wisconsin  
JERRY MORAN, Kansas  
GARY G. MILLER, California  
HENRY E. BROWN, JR., South Carolina  
TIMOTHY V. JOHNSON, Illinois  
SAM GRAVES, Missouri  
JIM GERLACH, Pennsylvania  
CHARLES W. DENT, Pennsylvania  
LYNN A. WESTMORELND, Georgia  
JEAN SCHMIDT, Ohio  
CANDICE S. MILLER, Michigan  
VERN BUCHANAN, Florida  
ROBERT E. LATTA, Ohio  
BRETT GUTHRIE, Kentucky  
AARON SCHOCK, Illinois  
ANH "JOSEPH" CAO, Louisiana  
PETE OLSON, Texas



## CONTENTS

	Page
Summary of Subject Matter .....	vii

### TESTIMONY

Byrd, Lamont, Director of Safety and Health, International Brotherhood of Teamsters .....	31
Donaldson, Ph.D., Gerald A., Senior Research Director, Advocates for Highway and Auto Safety .....	31
Douglass, Cynthia, Acting Deputy Administrator, Pipeline and Hazardous Materials Safety Administration, accompanied by Ted Willke, Associate Administrator, Office of Hazardous Materials Transportation, U.S. Department of Transportation .....	6
Harman, Elizabeth, Director of Hazardous Materials, International Association of Fire Fighters .....	31
Hersman, Deborah A.P., Board Member, National Transportation Safety Board .....	6
Hilton, Cynthia, Executive Vice President, Institute of Makers of Explosives and Co-Facilitator, Interested Parties for Hazardous Materials Transportation .....	31
Johnson, Chief Jeffrey D., First Vice President, International Association of Fire Chiefs, and Chief, Tualatin Valley Fire and Rescue, Beaverton, Oregon .....	31
Petrancosta, Robert, Vice President-Safety, Con-Way Freight, on behalf of The American Trucking Association, Inc. ....	31
Rogers, Mark, Director, Dangerous Goods Program, Air Line Pilots Association, International .....	31

### PREPARED STATEMENTS SUBMITTED BY MEMBERS OF CONGRESS

Costello, Hon. Jerry F., of Illinois .....	51
Cummings, Hon. Elijah E., of Maryland .....	57
Oberstar, Hon. James L., of Minnesota .....	64

### PREPARED STATEMENTS SUBMITTED BY WITNESSES

Byrd, Lamont .....	70
Donaldson, Ph.D., Gerald A. ....	83
Douglass, Cynthia, accompanied by Ted Willke .....	104
Harman, Elizabeth .....	113
Hersman, Deborah A.P. ....	122
Hilton, Cynthia .....	138
Johnson, Chief Jeffrey D. ....	147
Petrancosta, Robert .....	154
Rogers, Mark .....	178

### SUBMISSIONS FOR THE RECORD

Douglass, Cynthia, Acting Deputy Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, responses to questions for the record .....	197
Hersman, Hon. Deborah A.P., Board Member, National Transportation Safety Board, responses to questions for the record .....	219
Hilton, Cynthia, Executive Vice President, Institute of Makers of Explosives, responses to questions from Rep. Corrine Brown, of Florida .....	223
Petrancosta, Robert, Vice President, Con-way Freight and American Trucking Associations Hazardous Materials Policy Committee Past Chairman, responses to questions from Rep. Corrine Brown, of Florida .....	229

VI

ADDITIONS TO THE RECORD

Page

Cargo Airlines Association, Stephen A. Alterman, President, written statement .....	235
Transportation Trades Department, AFL-CIO, Edward Wytkind, President, letter and written statement .....	240



**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**  
Washington, DC 20515

**James I. Oberstar**  
Chairman

**John L. Mica**  
Ranking Republican Member

David Heymsfeld, Chief of Staff  
Ward W. McCarragher, Chief Counsel

James W. Coon II, Republican Chief of Staff

May 12, 2009

**SUMMARY OF SUBJECT MATTER**

**TO:** Members of the Subcommittee on Railroads, Pipelines, and Hazardous Materials  
**FROM:** Subcommittee on Railroads, Pipelines, and Hazardous Materials Staff  
**SUBJECT:** Hearing on "Reauthorization of the Department of Transportation's Hazardous Materials Safety Program"

**PURPOSE OF HEARING**

The Subcommittee on Railroads, Pipelines, and Hazardous Materials will meet on Thursday, May 14, 2009, at 2:00 p.m., in room 2167 of the Rayburn House Office Building to receive testimony on reauthorization of the Department of Transportation's (DOT) hazardous materials safety program. The program was last reauthorized in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (P.L. 109-59); it expired on September 30, 2008. The purpose of the hearing is to review implementation of the SAFETEA-LU amendments and prepare for reauthorization of the program.

**BACKGROUND**

As one of 10 agencies within the DOT, the Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for developing and enforcing regulations to ensure the safe movement of nearly 1.2 million daily shipments of hazardous materials by all modes of transportation.

Over the last decade, there have been 170,446 incidents involving the transportation of hazardous materials, resulting in 134 fatalities, 2,783 injuries, and more than \$631 million in property damage. The incidents primarily occurred during unloading (99,964 incidents), while the package is in transit (30,007 incidents), or while loading (27,685 incidents). Other incidents occurred while the package was in storage (10,872 incidents) or were unreported. The top five causes of the incidents

were human error, improper preparation of the package for transportation, forklift operations, improper blocking and bracing, and package dropped.

Aviation incidents involving the transportation of hazardous materials dropped from 1,582 incidents in 1999 to a decade-low of 732 incidents in 2002, but more than tripled in number from 2002 to 2006, when the number of aviation incidents involving hazardous materials totaled 2,411. They began decreasing again in 2007 to 1,554 and again in 2008 to 1,272, resulting in no fatalities and seven injuries.

Highway incidents involving hazardous materials decreased from 15,804 incidents in 2001 to 13,461 in 2005 and then increased to 14,669 incidents in 2008, resulting in five fatalities and 109 injuries. Rail incidents have steadily decreased from a high of 1,058 incidents in 2000 to 730 incidents in 2008, resulting in no fatalities and 14 injuries. Water incidents have increased dramatically over the last decade from a low of six in 2001 to a high of 98 in 2008, resulting in no fatalities or injuries. See Attachment A.

PHMSA's regulations are applicable to any person who transports, ships, or causes to be transported or shipped, hazardous material, or who is involved with the manufacture or testing of hazardous materials packaging or containers. However, under current law, such entities may submit applications to the Secretary for exemptions from the hazardous materials regulations, known as special permits or approvals. Depending on the permit request, the exemption is for four or more years. According to the DOT Inspector General, PHMSA has issued more than 4,500 special permits and 125,000 approvals since the inception of the program. Concerns have been raised about the ability of PHMSA to oversee and enforce the terms of special permits and approvals, given that PHMSA has 35 inspectors responsible for more than 300,000 entities. Concerns have also been raised about whether PHMSA is coordinating with the operating administrations before issuing special permits or approvals, in particular the Federal Aviation Administration (FAA). As such, the DOT Inspector General, acting on its own initiative, is conducting an audit of PHMSA to assess the effectiveness of PHMSA's policies and processes for reviewing and coordinating with the affected operating administration before authorizing a special permit or approval. The Inspector General is also assessing PHMSA's and other operating administrations' oversight and enforcement of approved parties' compliance with the terms and conditions of special permits and approvals. The audit is not yet complete, but the DOT Inspector General did bring to our attention their concern that PHMSA was issuing special permits to entire trade associations; meaning, the association would obtain the special permit and all of their members would be exempted from certain hazardous materials regulations. Twelve trade associations have been approved for special permits.

Any person who offers for transportation or transports certain hazardous materials in intrastate, interstate, or foreign commerce must register with the DOT. The DOT is required to collect an annual fee with the registration, which ranges from \$250 to \$3,000 (the maximum fee was reduced from \$5,000 to \$3,000 in SAFETEA-LU). The fees fund the Hazardous Materials Emergency Preparedness (HMEP) grant program which helps States, local governments, 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. On November 4, 2008, the Director of the Office of Hazardous Materials Planning and Analysis wrote a memo to the

DOT Inspector General requesting an audit of the HMEP program, citing concerns about the management and oversight of the program. The DOT Inspector General's office referred the issue back to PHMSA for handling. PHMSA is currently engaged in a comprehensive review of the program to ensure that it is effectively meeting emergency response planning and training needs and to identify ways to increase its effectiveness.

PHMSA estimates that the program provides more than two million emergency responders with initial training or periodic recertification training, including 250 paid firefighters, 850,000 volunteer firefighters, 725,000 law enforcement officers, and 500,000 emergency medical service providers.

Chairman Oberstar and Chairwoman Brown have raised concerns about whether these responders will be able to receive training beyond 2009 because of a lack of funding in the HMEP program account. In SAFETEA-LU, Congress doubled funding for the HMEP program from \$14.3 million to \$28.8 million. It was the understanding of Congress at the time that PHMSA would increase the registration fees to finance the higher authorizations if necessary. This did not occur and, as a result, the current amounts of the registration fees are not sufficient to cover the authorized levels beyond this fiscal year. On February 13, 2009, Chairman Oberstar and Chairwoman Brown sent a letter to Secretary LaHood, urging him to increase fees to fund the program at the authorized levels.

Secretary LaHood responded to the letter on May 5, 2009, stating: "We acknowledge that the current amounts of the registration fees are not sufficient to cover the authorized levels beyond this fiscal year. In order to address this issue, PHMSA will evaluate future funding needs and fee structures."

There are five levels of hazardous materials training, prescribed by the Occupational Safety and Health Administration (OSHA) and recommended by the National Fire Protection Association (NFPA): First Responder Awareness Level; First Responder Operations Level; Hazardous Materials Technician; Hazardous Materials Specialist; and On-Scene Incident Commander. First responders at the Awareness Level are individuals who are likely to witness or discover a hazardous substance release and initiate an emergency response sequence by notifying the proper authorities of the release. They are trained to take no further action beyond notifying authorities of the release. Most transportation workers are trained at the Awareness Level. Organizations representing fire fighters, however, recommend that responders who may be called to the scene of an accident receive more advanced training. They recommend, at a minimum, Operations Level training.

First responders at the Operations Level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the Operations Level must receive at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas: (A) Knowledge of the basic hazard and risk assessment techniques; (B) Knowledge of how to select and use proper personal protective equipment provided to the First Responder Operational Level; (C) An understanding of basic hazardous materials terms; (D) Knowledge of how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal

protective equipment available with their unit; (E) Knowledge of how to implement basic decontamination procedures; and (F) An understanding of the relevant standard operating procedures and termination procedures.

Currently, the law does not require the States, local governments, and Indian tribes that receive HMEP grants to train fire fighters at a specific level. As a result, most fire fighters only receive Awareness Level training. Organizations representing fire fighters have raised concerns about the adequacy of training provided to emergency responders through HMEP grants. According to the U.S. Fire Administration and the NFPA, which develops national fire fighter training standards, 36 percent of fire departments involved in hazardous materials response have not provided formal training in those duties to all involved personnel.<sup>1</sup> Further, more than four out of five fire departments do not have all their personnel involved in hazardous materials response certified to the Operations Level, and almost no departments have all those personnel certified to the Technician Level.

Organizations representing fire fighters have recommended that States, local governments, and Indian tribes that receive HMEP grants be required to train emergency responders at the Operations Level, at a minimum. A similar requirement exists for States that receive pipeline safety emergency response training grants, which was inserted into the law in the 106<sup>th</sup> Congress, the last pipeline safety reauthorization bill.

In addition to fire fighter training, hazardous materials regulations require all hazmat employers to provide training to their hazmat employees on the safe loading, unloading, handling, storage, and transportation of hazardous material and emergency preparedness in the event of an accident or incident. SAFETEA-LU strengthened hazmat training requirements by clarifying who was considered to be a hazmat employee and hazmat employer; requiring that maintenance-of-way employees and railroad signalmen be provided with general awareness and familiarization training; and increasing funding for train-the-trainer programs. The National Labor College provides one such program on behalf of the railroad unions for training rail workers, called the Rail Workers Hazardous Materials Training Program. The program meets DOT and OSHA training standards and provides workers with advanced classroom instruction, small group activities, intensive hands-on drills, and a simulated hazmat response. The training is above that required of railroads and does not replace, but rather builds upon, the training provided by hazmat employers. The program is funded, in part, through the National Institute of Environmental Health Sciences, the North American Railway Foundation, and the DOT (through registration fees).

SAFETEA-LU also addressed the issue of commercial motor carrier safety permits. With respect to Federal permits, current law requires commercial motor carriers that transport or cause to be transported in commerce certain quantities of high-hazard materials, such as radioactive material, explosives, compressed or refrigerated liquefied methane, liquefied natural gas, and poisonous-by-inhalation materials, to hold a safety permit the Secretary issues authorizing the transportation of those materials. There is no fee for the permit. In order to obtain and hold a safety permit, carriers must:

---

<sup>1</sup> Four Years Later – A Second Needs Assessment of the U.S. Fire Service, U.S. Fire Administration, Department of Homeland Security, and the National Fire Protection Association, October 2006.

- maintain a satisfactory safety rating;
- maintain their crash rate, and their driver, vehicle, hazardous materials or out-of-service rating so they are not in the worse 30 percent of the national average as indicated in the Federal Motor Carrier Safety Administration's (FMCSA) Motor Carrier Management Information System;
- have a satisfactory security program (and associated training) in place;
- maintain registration with PHMSA;
- develop a system of communication that will enable the vehicle operator to contact the motor carrier during the course of transportation and maintain records of these communications;
- have written route plans required under current regulations for radioactive materials; and
- perform a pre-trip North American Standard Level VI inspection for radioactive materials shipments.

In the final rule implementing the Federal permitting requirements, FMCSA stated that if a State had an equivalent program to the Federal program, the FMCSA would accept the State permit and the carrier would not need to also obtain a Federal permit. To date, no State has applied to FMCSA to have their permitting programs deemed "equivalent." Some industry and safety groups have raised concerns about FMCSA's implementation of the Federal permitting program.

In addition to obtaining a Federal safety permit, 42 states require commercial motor carriers to register, obtain a safety permit, and/or submit a hazardous/radioactive waste disclosure (if applicable), for a fee, in order to transport various hazardous materials through the state. The permits and the procedures for obtaining and holding the permits differ from state-to-state, with the exception of the States of Illinois, Michigan, Minnesota, Nevada, Ohio, Oklahoma, and West Virginia. These seven states belong to the Alliance for Uniform Hazmat Transportation Procedures, which is essentially a base state system whereby each commercial motor carrier transporting hazardous materials obtain a permit in the state the carrier travels the most miles. These permits are recognized by all the other participating states. Each state charges their own fees, but the Alliance has recommended a fee structure that double apportion fees based on miles and hazardous materials activity.

At the Federal level, the FMCSA is charged with implementing the program if 26 states adopt it, but they have indicated a lower threshold of 18 to 20 might be acceptable for moving ahead with a rule. Many states, however, have been reluctant to join the program.

SAFETEA-LU required the Secretary to establish a working group to develop a program that may be acceptable to the States and to report to the Secretary recommendations for establishing uniform forms and procedures. The Secretary was then authorized to issue regulations to carry out the recommendations of the working group. In issuing the regulations, the Secretary was required to consider the state needs associated with the transition to and implementation of a uniform forms and procedures program. The Secretary never established the working group and no regulations were issued.

With respect to background checks, SAFETEA-LU required the Transportation Security Administration (TSA) to develop and implement a process for notifying hazmat employers if an applicant fails a background records check and to eliminate redundant background checks. The law also set-forth a state appeals process, and required the TSA to submit two reports to the Committee:

one on the implementation of fingerprint-based security threat assessments and the other on the TSA's plans to reduce or eliminate redundant background checks for holders of hazardous materials endorsements.

Drivers who haul hazardous materials in a commercial motor vehicle at quantities requiring vehicle placards under DOT regulations must have a hazardous materials endorsement (HME). The USA Patriot Act (P.L. 107-56), enacted in 2001, prohibits states from issuing a license to transport hazardous materials in commerce to any individual without a determination by the Secretary of Homeland Security that the individual does not pose a security risk. TSA meets this mandate by requiring drivers seeking to apply for, renew, or transfer a HME on their state-issued Commercial Driver's License (CDL) to undergo a security threat assessment. The assessment includes a fingerprint based Federal Bureau of Investigation criminal history records check, a check for ties to terrorism, and an immigration status check. The TSA background check is valid for five years. A driver applying for or renewing an HME on a CDL must submit to fingerprinting at a TSA location, and must pay an \$89.25 fee if the state is using a TSA agent to conduct the background check or \$86.25 if the state is not using a TSA agent. The states of Florida, Kentucky, Indiana, Massachusetts, Mississippi, New Mexico, New York, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin do not use a TSA agent. Typically, receipt of the results of the background check occurs within 30 days.

An individual may be disqualified from holding an HME based on being convicted of, or found not guilty by reason of insanity, a list of specific crimes, in the past seven years. An individual is entitled to appeal or seek a waiver of a TSA determination, except if the individual has committed espionage, sedition, treason, or terrorism (which is defined as a crime under 18 U.S.C. Chapter 113B or a comparable state law). These are known as "permanently disqualifying" offenses. The disqualification standards under the HME program are identical to the standards TSA applies under the Transportation Worker Identification Credential (TWIC). Industry and some labor groups have raised concerns about the number of background checks that they are subject to, because a few states and localities have started to conduct their own additional background checks of drivers.

With respect to background checks for commercial drivers registered to operate in Mexico or Canada, SAFETEA-LU required TSA to ensure that the drivers undergo a background records check similar to the background records check for U.S. drivers, but TSA failed to implement the requirement as Congress had intended. Following enactment, TSA determined that commercial drivers in Mexico and Canada would undergo checks of their criminal history in the United States, but not checks of their criminal history in Mexico or Canada. Fortunately, the Government of Canada decided to share the results of their own background records checks of commercial drivers with U.S. enforcement officials. However, a similar arrangement does not exist between the U.S. and the Government of Mexico; as a result, the U.S. grants commercial drivers from Mexico authority to transport hazardous materials in the U.S. (currently limited to commercial zones) without receiving a check of their criminal history in Mexico.

SAFETEA-LU also conferred new inspection and investigative authority on PHMSA regarding the transportation of hazardous materials. According to the Government Accountability Office (GAO), more than three billion tons of regulated hazardous materials are transported in the United States each year. Under DOT-mandated safety standards, nearly all of these shipments move through the system safely and without incident. When incidents do occur, DOT-mandated labels and other forms of hazard communication provide transportation employees and emergency

responders the information necessary to mitigate the consequences. Yet their effectiveness depends largely on compliance by hazmat offerors and carriers, beginning with proper classification and packaging of hazardous materials. When a package containing hazardous materials is placed in transportation without regard to or in violation of hazardous materials requirements, the effectiveness of all other risk controls is compromised, increasing both the likelihood of an incident and the severity of consequences. Accordingly, DOT has considered undeclared and improperly marked shipments of hazardous materials to be serious safety issues. FAA enforcement statistics, in particular, show that undeclared hazardous materials are a frequent and persistent problem. In 1993, FAA reported 420 enforcement cases involving undeclared hazardous materials shipments. Seven years later, the number of such enforcement cases rose to 1,716.

The new authority provided in SAFETEA-LU authorizes DOT inspectors to open and inspect cargo when they have "an objectively reasonable and articulable belief that the package may contain a hazardous material" and to remove from transportation packages in a shipment offered for, or in, transportation when the inspector "has an objectively reasonable and articulable belief that the package may pose an imminent hazard" and documents the belief. Prior to enactment of SAFETEA-LU, the DOT could not generally open and inspect packages without a warrant or the shipper's consent.

On October 2, 2008, PHMSA issued a Notice of Proposed Rulemaking (NPRM) to implement their new authority. In the NPRM, PHMSA makes clear that inspectors will not be permitted to open single packages, including boxes, cylinders, portable tanks, and cargo tanks. The new inspection procedures only apply to the opening of an overpack, outer packaging, freight container, or other packaging component not immediately adjacent to the hazardous material.

Industry has raised concerns about how DOT intends to reclose inspected packages, the amount of time required to conduct the inspections, citing concerns with delaying business operations, and the costs of inspections. DOT believes that many of industry's concerns were addressed in the NPRM, and has stated that it is in the process of developing inspection procedures to ensure they are adhered to in the field.

It is important to note that PHMSA currently has only 35 inspectors responsible for overseeing more than 300,000 entities. The special investigations unit, located in Washington, DC, has seven inspectors. The others are divided into five regions:

- The Eastern Region has four inspectors covering Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia.
- The Central Region has six inspectors covering Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
- The Southern Region has six inspectors covering Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina, and Tennessee.
- The Southwest Region has seven inspectors covering Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.
- The Western Region has five inspectors covering Alaska, American Samoa, Arizona, California, Colorado, Commonwealth of Northern Mariana Islands, Guam, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

SAFETEA-LU strengthened enforcement of hazardous materials regulations and increased civil and criminal penalties. SAFETEA-LU also limited Federal preemption of enforcement of hazardous materials regulations.

Federal hazmat law contains strong preemption provisions requiring state, local, and Indian tribe hazmat transportation requirements to be similar to Federal requirements. The first basis for preemption – the dual compliance test – refers to when compliance with the non-Federal requirement would force noncompliance of the Federal rule. For example, if Federal law requires a red placard for a specific material, state law cannot require an orange placard. The second basis – the obstacle test – refers to when non-Federal requirements pose an obstacle to carrying out the Federal law and achieving its purpose. For example, if state law provides additional requirements for Federal shipping papers causing confusion for emergency responders, it will be considered an obstacle and preempted by Federal law because the purpose of the Federal shipping papers has been defeated. Therefore, a non-Federal entity may adopt additional or different requirements pertaining to the transportation of hazardous material provided those requirements do not preclude compliance with the Federal rule and are not an obstacle to the purpose of Federal law.

However, there is typically no Federal preemption of enforcement. SAFETEA-LU amended the law to make sure that State, local, and tribal enforcement of hazmat requirements does not have to parallel Federal enforcement standards, procedures, and penalties. Most states, for example, have lower civil and criminal penalties than Federal law. For example, Georgia has a maximum civil penalty of \$15,000 (less than the Federal maximum of \$50,000 or \$100,000 if the violation results in death, serious illness, or severe injury to any person or substantial destruction of property) and a maximum criminal penalty of \$1,000 and one-year incarceration (less than the Federal maximum of \$500,000 and five years). Georgia's Public Safety Commission states that a typical violation results in a \$500 fine. The situation is apparently similar in most other states. DOT has stated that state and local penalties for violating consistent state and local rules are not preempted unless they are so extreme or arbitrarily applied as to reroute or delay shipments, and that mere differences in amount do not result in preemption.

With respect to research, SAFETEA-LU required PHMSA and the Transportation Research Board of the National Academy of Sciences to conduct nine research projects related to hazardous materials safety. Six of the nine projects have been started, including (1) development of a guidebook for conducting hazardous materials commodity flow surveys to support local risk assessment, emergency response preparedness, and resource allocation (to be completed in September 2009); (2) development of a set of recommendations for methods to improve the availability and quality of hazardous materials transportation incident data, identify gaps and redundancies in reporting requirements, and provide an estimate of under-reporting (to be completed in June 2009); (3) development of a guide for assessing emergency response needs and capabilities for hazardous materials releases (to be completed in September 2009); (4) identification and analysis of emerging safety technologies applicable to hazardous materials transportation safety and security (to be completed in March 2009); (5) development of a roadmap for the use of electronic shipping papers as an alternative to the current paper-based system (to be completed in January 2010); and (6) development of a tool to assess soil and groundwater impacts of chemical mixture releases from hazardous materials transportation incidents (to be completed in April 2010).

Three more projects are just getting started: (1) the performance of bulk containers involved in a transportation accident; (2) the feasibility of a single transportation worker identification credential and license; and (3) dry ice limits on aircraft (dry ice is defined as a hazardous material). PHMSA currently has no other research and development program.

Other issues which may be discussed at the hearing include the safety of transporting lithium batteries by air; coordination between PHMSA and the modal administrations; DOT preemption of OSHA standards protecting the occupational safety and health of hazmat employees that load, unload, and handle hazardous materials; and the safety of loading lines on trucks that transport fuel and other flammable materials.

**WITNESSES**

**Mr. LaMont Byrd**  
Director of Safety and Health  
International Brotherhood of Teamsters

**Mr. Gerald A. Donaldson, Ph.D.**  
Senior Research Director  
Advocates for Highway and Auto Safety

**Ms. Cynthia Douglass**  
Acting Deputy Administrator  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation

**Ms. Elizabeth Harman**  
Director of Hazardous Materials  
International Association of Fire Fighters

**Ms. Deborah Hersman**  
Board Member  
National Transportation Safety Board

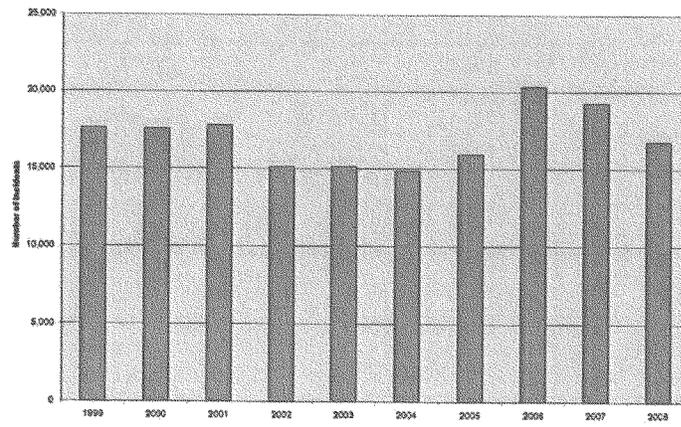
**Ms. Cynthia Hilton**  
Executive Vice President, Institute of Makers of Explosives and  
Co-Facilitator, Interested Parties for Hazardous Materials Transportation

**Chief Jeffrey D. Johnson**  
First Vice President, International Association of Fire Chiefs, and  
Chief, Tualatin Valley Fire and Rescue (Aloha, OR)

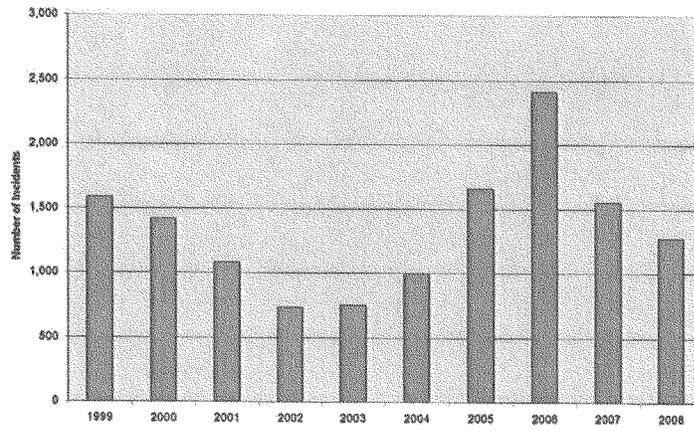
**Mr. Robert Petrancosta**  
Vice President - Safety  
Con-way Freight  
On behalf of the American Trucking Association, Inc.

**Mr. Mark Rogers**  
Director, Dangerous Goods Program  
Air Line Pilots Association, International

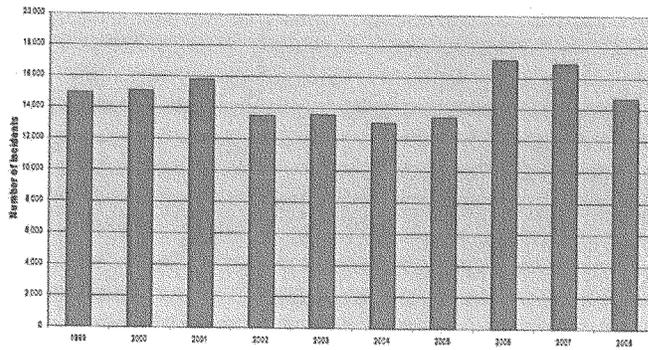
**Total Number of Hazmat Incidents 1999-2008**



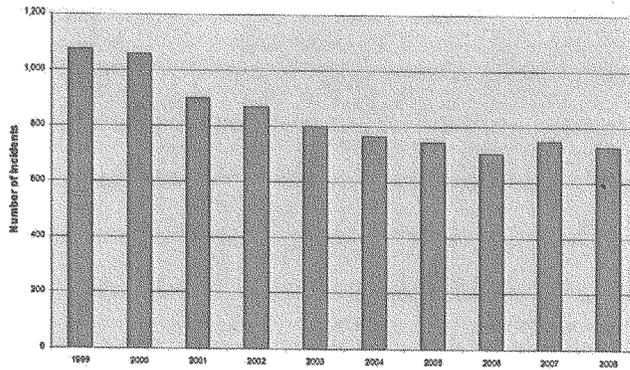
**Air Hazmat Incidents 1999-2008**



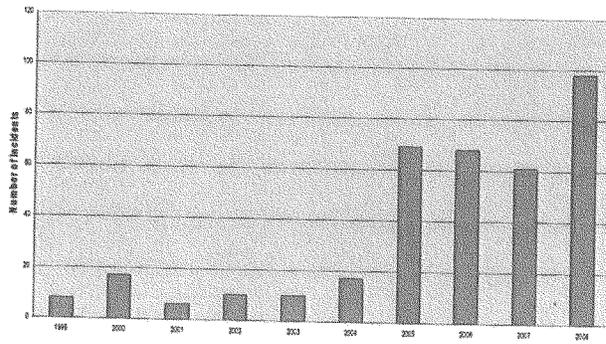
Highway Hazardous Materials Incidents 1999-2008



Rail Hazardous Materials Incidents 1999-2008



Water Hazardous Materials Incidents 1999-2008





**REAUTHORIZATION OF THE DEPARTMENT OF  
TRANSPORTATION'S HAZARDOUS MATE-  
RIALS SAFETY PROGRAM**

---

**Thursday, May 14, 2009**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND  
HAZARDOUS MATERIALS,  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
*Washington, DC.*

The Subcommittee met, pursuant to call, at 2:50 p.m., in Room 2167, Rayburn House Office Building, Hon. Corrine Brown [Chairman of the Subcommittee] Presiding.

Ms. BROWN OF FLORIDA. Will the Subcommittee on Railroads, Pipelines, and Hazardous Materials come to order.

The Subcommittee is meeting today to hear testimony on the reauthorization of the Department of Transportation's Hazardous Materials Safety Program. The program was last reauthorized in SAFETEA-LU. It expired in September 2008. Today's hearing will review the implementation of the SAFETEA-LU amendments and issues that we may want to consider addressing in a reauthorization bill.

SAFETEA-LU made a number of significant changes in the Hazardous Materials Safety Program. It provided DOT with enhanced inspection authority, although I am concerned that the Pipeline and Hazardous Materials Safety Administration has just 35 inspectors to cover more than 300,000 entities. I am not sure how you can conduct adequate inspections and then ensure compliance with the hazardous materials regulation with only 35 inspectors on board. That is something that we need to address in the reauthorization bill.

SAFETEA-LU also strengthens training requirements and doubles funding for firefighters' training programs. The Hazardous Materials Emergency Preparedness grant program is of critical importance for training firefighters on how to respond to accidents and incidents involving the hazardous materials. Unfortunately, the current registration fees are not sufficient to fund the program beyond 2010, and that needs to be addressed. I would like to know what the DOT is doing about that.

In addition, I think it is important that we consider the level of training that we provide to emergency responders. Firefighters on the ground have recommendations for a higher level of training for all personnel. I believe that is something we should address.

We also need to look closely at the exemption that DOT has been issued from hazardous material regulations. According to the inspector general, the DOT has issued more than 4,500 special permits and 125 approvals since they started the program. Concerns have been raised about the safety review that DOT conducted prior to approving those exemptions, whether there is appropriate coordination with the operating administrators, such as the FAA, before an application is approved and how well the administration is doing in enforcing the terms of the exemption. These are a few issues that I believe we need to address in the legislation.

With that, I want to welcome today's panelists and thank them for joining us. I am looking forward to their testimony.

Before I yield to Mr. Shuster, I ask unanimous consent that Members be given 14 days to revise and extend their remarks and to submit additional statements and materials by Members and witnesses.

Without objection, so ordered.

I yield to Mr. Shuster for his opening statement.

Mr. SHUSTER. I thank the Chairwoman, and I want to welcome everybody here who is going to testify before the Committee. I appreciate your taking the time and putting the effort forward to be here on a topic that is extremely important to the Nation, the Hazardous Materials Transportation Safety Program.

The safe and efficient transportation of hazardous materials is enormously important to the national economy and to our way of life. HAZMAT is broadly defined as essentially anything that could cause an unreasonable risk to human health or to the environment if it is mishandled.

HAZMAT encompasses a surprisingly large percentage of goods that we consider essential to modern civilization. Twenty-eight percent, nearly a third, of all ton-miles of annual freight on our roads, rails, waterways, and air cargo is considered hazardous material. The United States has 1.2 million shipments daily of HAZMAT, totaling 3.1 billion tons a year. These shipments include everything from the fuel that heats our homes, that fills our gas tanks, to the elements of most commercial products, as well as other goods that are often unseen, but are just as important, like fertilizer for our crops, chemicals that keep our drinking water safe and medical materials to diagnose and to treat the sick. The importance of being able to safely and quickly deliver a wide range of potentially dangerous material cannot be understated.

Fortunately, the private HAZMAT carriers who are ultimately responsible for moving these goods to market have an outstanding safety record. HAZMAT carriers are a diverse group of businesses, ranging from mom-and-pop operations, who own a single tank truck, up to multinational corporations handling thousands of shipments daily. These carriers have a remarkable safety record.

My calculator actually had an error when we were trying to figure out what percentage of movements of hazardous goods result in an injury or in a fatality. It turns out to be 0.00002 percent that result in an injury and 0.0000014 percent of movements that result in a fatality. So this is really a remarkable safety record, and I have said that three times. It is remarkable—I will say it a fourth time—because they do a great job.

Our goal should always be to make things safer, but we have to carefully weigh the risks associated with the costs when taking legislative action. It is very important that we maintain the balance between commerce and regulation that has resulted in such a successful program.

There are a few things I know that we can do better, such as ensuring that the Federal Government does a better job coordinating with the States to create more uniform standards for forms and permits, eliminating the duplication of background checks by the various governmental entities, as well as ensuring that enforcement is carried out consistently and fairly with as little disruption to the flow of commerce as possible.

Of course, when you are talking about moving dangerous goods, there is going to be a risk, and there are going to be accidents. There is no way to completely eliminate that risk unless we just completely stop shipping these materials that are so vital to us. But what we need to do is to make careful and considerate choices about where we can best use our resources to minimize these risks while maintaining an effectively functioning system.

If we regulate too much, we risk knotting the system in so much red tape that it will cease to be effective for its users and could damage the economy and our society. For example, if you create too many layers of permitting and inspection, you risk delaying the shipment of hazardous pharmaceuticals with short shelf lives to patients in need.

So, as we begin to talk about the reauthorization of this successful program, we should take great care to ensure that we do not disrupt the balance between commerce and regulation that has resulted in a smoothly functioning system with an outstanding safety record.

I look forward to hearing from all of you today.

I yield back.

Ms. BROWN OF FLORIDA. Thank you.

I ask unanimous consent that the gentleman from Illinois, Mr. Hare, be permitted to participate in today's hearing and sit and ask questions of the witnesses. Also, the gentlewoman from the District of Columbia, Ms. Norton.

I yield to Mr. Hare.

Mr. HARE. Thank you, Madam Chair, and I appreciate your holding this hearing. I am pleased to be here to discuss the reauthorization of the Transportation Department's Hazardous Materials Safety Program. While we have a number of key issues to address today, I would like to focus my remarks on one very important topic, the safety and health of hazardous material employees.

Just 3 weeks ago, on April 28, we honored the 21st annual Workers Memorial Day, which is when people all over the world gather to remember workers who have been killed or injured on the job. April 28 also commemorated the creation of the Occupational Safety and Health Administration. Since 1970, OSHA has been the driving force in improving workplace safety and health across this great Nation.

Under current law, OSHA and the DOT share jurisdiction over the transportation of hazardous materials. DOT has the authority to regulate in the transportation arena and OSHA has the respon-

sibility for ensuring that hazardous material employees are adequately protected from injuries and death while on the job. This line of jurisdiction was affirmed in a 2005 final rule issued by the Department of Transportation.

It has come to my attention, however, that the explosive trucking and fertilizer industries have, once again, proposed to eliminate that shared jurisdiction, thereby eliminating OSHA's authority over employees engaged in loading, unloading and handling hazardous materials, with the exception of training, under the guise that there is overlapping and confusing regulation of the industry.

The Committee has spoken with both DOT and OSHA on this topic, and there is no such confusion. DOT has regulations on the description of hazardous materials, safety procedures for loading and unloading those materials, packaging and marketing. OSHA has regulations for hazard communication at fixed facilities, such as noise and air quality control, walking and working surfaces, emergency preparedness, personal protective equipment, and fire protection. These regulations are not new. They have existed for decades, and they are critical to maintain the highest level of safety for employees handling hazardous materials.

Additionally, OSHA does an excellent job of protecting workers from hazardous conditions that are prevalent in the transportation sector that are nonchemical, such as locking and blocking wheels to prevent accidental or unintended movement of mobile equipment and cargo while workers are loading, unloading, hitching, unhitching, or performing services or maintenance. Unfortunately, DOT does not pay much attention to these more mundane hazards, further highlighting OSHA's importance to workers in the industry.

The industry's proposals to end OSHA's involvement in the transportation sector is nothing more than a blatant attempt to circumvent compliance with these regulations and to avoid responsibility under the law. Weakening the authority of OSHA would result in real life-or-death consequences for American workers in such a high-risk industry.

As the former president of the UNITE HERE Local 617, representing apparel and textile workers, I have seen firsthand how employers address hazards in the workplace or, more importantly, how they choose not to when other business priorities, such as profits, would be impacted.

It is a fact that 16 workers die every day in our country from work-related injuries. In 2005 alone, over 5,700 workers were killed at work, and the situation is only getting worse. The Bureau of Labor Statistics found that the number of workplace deaths jumped by more than 2 percent between 2005 and 2006.

I am committed to maintaining a safe and healthy workplace for all American workers, including those in the hazardous material industry. I will work with Chairman Oberstar and with Chairwoman Brown to defeat this ill-conceived proposal.

With that said, I note that the National Transportation Safety Board's written statements indicate concerns that the Department of Transportation does not have enough authority to regulate loading and unloading questions. I have no problem with addressing that concern. In fact, I believe that the Department of Transportation intends to address these concerns in an upcoming rule-

making, but that additional authority should not be at the expense of OSHA. I do not believe, from conversations that the Committee has had with the NTSB, that this is what the NTSB is proposing.

I thank you, Madam Chairman, and I look forward to hearing from the witnesses.

Ms. BROWN OF FLORIDA. Ms. Norton.

Ms. NORTON. Thank you, Madam Chair, and thank you for allowing me to sit. I am a Member of the Full Committee. I have not been able to be on this Committee this year, but I do want to sit in often on this Committee because much of what you do is of great importance to my district as well as to the country.

The hazardous substances area presents immense challenges to a market economy. We must transport hazardous substances and even hazardous waste, such as nuclear waste, from one place to another, and that means by various modes of transportation. The last session—indeed, in 2007, I believe—was the first time we had passed a rail security bill, and there were certain sections that related to freight security. This matter was of huge risk right here in the Nation's Capital. We allowed trains carrying hazardous substances to pass within 2 miles of the Capitol while the Department of Homeland Security and other agencies not only had nothing to say about them, but refused, even in the face of a court suit by the local jurisdiction, to say what, if anything, it was doing to either reroute trains or to otherwise account for the fact that toxic substance freights were passing so close to the Capitol and to other parts of the Federal presence.

The silence was what seemed to be the most indefensible. At least in the prior administration we had taken to saying "national security" or "security" as if to say "shut up," as if the public were not entitled to know. That only made residents of this region more fearful.

We have improved the matter, but we still are not transparent on these substances, where they go. It is, I believe, one of the great neglected areas after 9/11.

In Spring Valley, a neighborhood in the District of Columbia, hazardous materials from World War I were discovered. The Corps of Engineers proposes that it has now cleaned it up. It so proposed about 10 years ago, and then they found more of these weapons, chemical weapons, that have been buried in the Nation's Capital at a time when there were no homes there. What we discovered was the only FUDS area, the only area that had been used to dump chemical weapons, has become a residential neighborhood.

We will be having hearings in another Committee shortly, Madam Chair, as the Corps of Engineers proposes, once again, to leave without being willing to guarantee or to even say that all of these chemical weapons have, in fact, been cleared away. I mean, that is the primitive level on which we are still dealing with hazardous substances which are found in very many places and throughout our society.

So I particularly was concerned, even after we have had train wrecks such as the one in South Carolina perhaps 3 or 4 years ago, where hazardous substances were en route. There was a wreck; seven people were killed, and there it stood.

This area needs work from the ground up. It is one of the great neglected post-9/11 areas.

Your work is seminal in this regard, Madam Chair, and I thank you for your initiative here today.

Ms. BROWN OF FLORIDA. Thank you.

Now I am pleased to introduce our first panel of witnesses. We have Ms. Cynthia Douglass, who is Acting Deputy Administrator for the Pipelines and Hazardous Materials Safety Administration of the U.S. Department of Transportation, and we have Ms. Deborah Hersman, who is a longtime member of the National Transportation Safety Board.

Welcome. We are very pleased to have you with us here this morning.

Ms. Douglass, we will start with you. And I want to remind the witnesses that, under Committee rules, all statements must be limited to 5 minutes, but your entire statements will appear in the record. We are pleased to have you all with us.

**TESTIMONY OF CYNTHIA DOUGLASS, ACTING DEPUTY ADMINISTRATOR, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, ACCOMPANIED BY TED WILLKE, ASSOCIATE ADMINISTRATOR, OFFICE OF HAZARDOUS MATERIALS TRANSPORTATION, U.S. DEPARTMENT OF TRANSPORTATION; AND DEBORAH A.P. HERSMAN, BOARD MEMBER, NATIONAL TRANSPORTATION SAFETY BOARD**

Ms. BROWN OF FLORIDA. You may begin, Ms. Douglass.

Ms. DOUGLASS. Chairwoman Brown, Ranking Member Shuster and distinguished Members of the Committee, I am Cindy Douglass, Acting Deputy Administrator of the Pipeline and Hazardous Materials Safety Administration. Sitting with me is Ted Willke, the Associate Administrator for the Office of Hazardous Materials Transportation. I appreciate the opportunity to testify on PHMSA's hazardous materials program.

I believe it is one of the best agencies in government. In large part, this is due to the strong leadership of your Committee and your staff. We are grateful.

Our staff is working every day to enhance the safe and efficient transportation of hazardous materials. We regulate the transport of about 1 million daily movements of hazardous materials. There are approximately 450 serious incidents a year, resulting in about 15 deaths.

Under the Secretary's delegations of authority, PHMSA has primary responsibility for hazardous materials transportation. We coordinate regulations, enforcement, research, and outreach with our sister agencies in aviation, rail, motor carrier, and with the Coast Guard for water and ports. This partnership has worked very well for over 30 years to assure the safe, environmentally sensitive, efficient, and uniform transportation of hazardous materials.

Our State partners are also critical to our program. PHMSA, the Motor Carrier Safety Administration and the State highway patrol cooperate to enforce the regulations on our highways. The highway patrol and firefighters are the first responders to a HAZMAT incident. PHMSA provides critical support to these groups to assure

they are prepared to provide an effective first response to an accident, not only to protect the public, but to protect themselves.

Another critical component of our program is PHMSA's leadership internationally to align domestic transportation requirements with international transport standards. We have chaired the United Nations Committee of Experts on the transportation of dangerous goods for 26 of the last 30 years, and represent the Department on the Hazardous Materials Subcommittees of the International Civil Aviation Organization and the International Maritime Organization.

The Department's Hazardous Materials Transportation Safety Program enhances safety by developing strategies to address the greatest risks. The risks include fires on board commercial aircraft, releases of materials that are poisonous by inhalation, rollovers of tank trucks carrying flammable liquids, such as gasoline, bulk loading and unloading operations and undeclared shipments of hazardous materials.

I would like to highlight some of the activities of the past year.

PHMSA and FAA have had numerous discussions on how best to regulate the risk of fire aboard aircraft, specifically due to lithium batteries. Current regulations essentially ban lithium batteries from passenger aircraft. Based on recommendations from the NTSB and our own analysis of incident data, FAA and PHMSA have agreed to initiate rulemaking to further enhance the safety of lithium battery shipments on cargo aircraft. We also sponsor a Web page providing guidance on how to travel safely with batteries and battery-powered devices. To date, the Safe Travel Web site has recorded several million hits.

PHMSA and FRA issued two rules addressing safety risk posed by PIH, Poisonous by Inhalation, hazardous materials that are transported in large quantities by rail. One requires rail carriers to assess routing alternatives and to use the safest, most secure routes. The second establishes more rigorous design standards for tank cars to enhance their ability to survive accidents without releasing their hazardous material cargoes. PHMSA and the Motor Carrier Safety Administration have initiated rulemaking to examine safety issues associated with the bulk loading and unloading operations.

We are increasing our enforcement staff and are using new technology to implement a risk-based approach to enhance compliance and to reduce incidents. Last fall, we launched the HAZMAT Intelligence Portal. This data warehouse tool inputs hazardous materials information available from 27 different government databases into one easy-to-use portal, and it also helps us focus our inspections on the high-risk companies.

PHMSA also distributes about \$28 million a year in Hazardous Materials Emergency Preparedness grants for the emergency response community and labor organizations. It is the only federally funded program available solely for the training of responders in hazardous materials and community preparedness planning.

Last year, we distributed our eighth edition of the Emergency Response Guidebook. You should have a copy in front of you. It assists emergency responders in responding to hazardous materials transportation incidents. Since 1980, we have distributed over 11

million ERGs free to first responders. The ERG is now on the Internet and is available electronically on smartphones and on personal digital assistants.

We partnered with the International Association of Fire Chiefs to establish the National Hazardous Materials Fusion Center. This center provides a Web-based system for hazardous materials teams, first responders, Federal, State and local agencies and the private sector to share experiences in order to learn from each other how best to address new and emerging HAZMAT challenges.

PHMSA has taken advantage of many new technologies to enhance the effectiveness and efficiency of our program. Recently, I visited the Port of New York-New Jersey and then the Port of Jacksonville for a multiagency strike force operation, and witnessed new technologies being used to search cargo shipment containers and speed truck driver identification. These new paperless technologies enable the movement of up to 60,000 trucks per day through intermodal port facilities while greatly enhancing security, safety and efficiency.

Finally, in building for the future, I want to highlight several initiatives that we have under way.

We will be hiring ten new inspectors and five staff for our grant program, our data analysis and for our special permit offices in fiscal year 2010. We are establishing a new enforcement training initiative. This will help ensure the uniform application of the regulations, resulting in a safer transportation network. PHMSA is expanding its emergency response strategy to make training available to more of the 800,000 volunteer firefighters across the country.

We have a 5-year plan to promote international harmonization of HAZMAT standards to further enhance the safety of lithium battery shipments, marine pollutants, explosives transported by air, and intermediate bulk containers.

In closing, I commend you and the Members of this Committee for your leadership and support. Secretary LaHood and all of us at DOT are looking forward to working with you to provide America with a safe, secure, environmentally sensitive, efficient, and uniform transportation system.

Thank you for this opportunity to testify. I will be happy to take your questions.

Ms. BROWN OF FLORIDA. Ms. Hersman.

Ms. HERSMAN. Good afternoon, Chairwoman Brown, Ranking Member Shuster, Chairman Oberstar, and Members of the Committee. Thank you for the opportunity to appear before you today on behalf of the National Transportation Safety Board.

I will talk to you about three issues of concern for the NTSB—the air transportation of lithium batteries, the hazards of wet lines on highway cargo tanks, and the loading and unloading of hazardous materials from railroad tank cars and from highway cargo tanks.

First, air transportation of lithium batteries. Lithium batteries are commonly found in watches, cameras, cell phones, and laptop computers. As the popularity of electronic devices has increased, so has the number of lithium battery fires in transportation.

In 1999, the NTSB investigated a fire that destroyed two cargo pallets holding boxes of primary batteries at a cargo facility at LAX. The pallets had arrived on a passenger airliner from Japan. Neither pallet was marked "hazardous." One of the pallets fell off of a forklift and overturned. About 3 minutes later, it caught on fire and then caught the other pallet on fire.

In 2006, a cargo aircraft had an in-flight fire, and made an emergency landing in Philadelphia. The aircraft and most of the cargo were destroyed by fire after landing. Although the cause of the fire could not be determined, the NTSB used this investigation to closely look at the safety of transporting lithium batteries on commercial aircraft. Testing and incident data indicate that lithium batteries pose a fire hazard, and the Safety Board believes that an in-depth analysis of this transportation hazard is needed.

The NTSB recommended that PHMSA require the reporting of all incidents involving lithium batteries as well as the retention and analysis of the failed batteries so that we could research the modes of failure. The Safety Board has recommended that PHMSA eliminate regulatory provisions that permit limited quantities of these batteries to be transported without labeling, marking or packaging them as hazardous materials. The NTSB has also recommended that PHMSA and the FAA address the lack of public awareness regarding the safety of lithium batteries.

Now, on to wet lines. Gasoline and diesel fuel can be transported in external pipes, or wet lines, situated below cargo tanks on tanker trucks. Wet lines are designed to break away at the connection point to the tank as shown by the valve in this photo. This is to prevent the loss of the entire contents of the tank. However, if a wet line is full of gasoline or diesel when the breakaway occurs, it can release as much as 50 gallons of product, presenting a significant fire hazard.

In 1997, a tanker truck semi-trailer, transporting gasoline, was struck by a car in Yonkers, New York. The car hit the tank's wet lines, releasing the gasoline in them. The ensuing fire destroyed both vehicles, a highway overpass, and the driver of the car was killed.

In 1998, the NTSB investigated a similar accident in Wilmington, Delaware, in which a tanker truck transporting gasoline struck a car that was parked on the shoulder of a bridge. Three of the four wet lines were fractured, releasing approximately 12 gallons of gasoline. A fire ensued, which destroyed the car, and the driver was killed.

To demonstrate the vulnerability of wet lines, the NTSB placed 12 passenger vehicles of varying sizes near the wet lines of a typical cargo tank. It was found that each vehicle would have struck the wet lines of the truck had they moved forward. The NTSB believes that most vehicles currently in use are capable of striking the wet lines of cargo tanks.

PHMSA has developed a program of best practices for fueling operations, maintenance procedures, and other safeguards. However, these actions do not address the need to eliminate wet lines. Some companies have voluntarily installed purging equipment on their fleets, and this would eliminate the vulnerability of wet lines on their tankers.

Lastly, the loading and unloading of hazardous materials. In 2002, a 24,000-gallon railroad tank car of hazardous waste catastrophically ruptured at a chemical facility in Freeport, Texas, while the car was being steam-heated. Twenty-eight people were injured in this accident. The NTSB determined that the tank car was overpressurized by excessive heating, which created a runaway chemical reaction. In this and other accidents, the NTSB has found the inadequate Federal safety oversight of the loading and unloading of hazardous materials from highway cargo tanks and railroad tank cars.

In January 2008, PHMSA published proposed recommended practices for loading and unloading bulk liquid containers. Although those recommended practices are comprehensive, they are not enforceable. The NTSB believes that PHMSA should codify in regulations the recommended practices for more effective oversight for these operations.

My written testimony has been submitted for the record, and it includes information on other issues of interest to the NTSB. Again, thank you for the opportunity to identify our top safety concerns regarding HAZMAT. I will be happy to answer your questions.

Ms. BROWN OF FLORIDA. Mr. Oberstar.

Mr. OBERSTAR. I want to thank the panel for their presentations and for participating in this very important hearing. Safety is the essential element of transportation, and it has been the constant vigilance of this Committee over all of its years that I have served here, and that is a long time.

There were more than 3.3 billion lithium cells and batteries transported worldwide last year. That is nearly a tripling of the number just 3 years earlier. You have already described, Ms. Hersman, in your presentation—and so has Ms. Douglass—the complexity engaged in lithium batteries. Out of this rise two issues of concern to me: the safety of moving these batteries on the ground and in the air and the practice of transporting flammable material, as was described in Ms. Hersman's presentation from the National Transportation Safety Board.

Ms. Hersman, are there some lessons learned that jump to mind in this experience? Can you think of a couple of experiences that come to mind quickly?

Ms. HERSMAN. Sure.

With respect to lithium batteries, I think one of the things that we identify—

Mr. OBERSTAR. No, not lithium. I am talking about lessons learned from fire on board.

Ms. HERSMAN. Absolutely. The challenge for aviation is they do not have the ability to pull over in the clouds.

Mr. OBERSTAR. In the air, there is no curb.

Ms. HERSMAN. No. So the challenges are—

Mr. OBERSTAR. I am thinking of two incidents.

Ms. HERSMAN. You are thinking about two accidents where there was fire?

Mr. OBERSTAR. Two accidents.

Ms. HERSMAN. Absolutely. Swissair is one where we saw a fire quickly, and we have seen a number of cargo accidents that involve fire.

Mr. OBERSTAR. ValuJet—

Ms. HERSMAN. Absolutely.

Mr. OBERSTAR. —with the oxygen tanks.

Ms. HERSMAN. Yes.

Mr. OBERSTAR. Okay. In Swissair, it was the arcing of bundles of wires in the electrical system, buried in the insulation on board that 767. Nobody thought insulation would catch on fire, but it did, and 110 people died. There was no safety procedure to safeguard against the rubbing away of the coating, of the simple Mylar coating of those electrical conduit wires, but they chafed, they rubbed. It wore away, and a 1,000-degree arc ignited the insulation. It is not supposed to burn at that. We learned a lesson from that and applied it.

We learned a lesson with ValuJet. There was no labeling, as the NTSB reported. There was no labeling of those oxygen bottles. They were put on board that aircraft. They were not properly secured. They were not separated from one another. They banged one another and then were eventually stored inside a rubber tire that provided more fuel for the fire, and it was a disastrous accident that killed people in a Florida swamp.

We are here faced with another situation of similar magnitude. What troubles me about the lead-up to this is, over a period of 2 or 3 years, PHMSA and the FAA were going back and forth and were not doing anything. They were not taking action on a matter that is of the highest safety importance.

Now tell me what you have accomplished. What have you agreed upon to do with the FAA? You are in the same Department of Transportation.

Ms. DOUGLASS. Yes. We have been working very closely on this issue, and I will say that over the last—I do not know—I suppose, couple of years, they have been working very hard to try to come to an agreement on exactly how this should be regulated. However—

Mr. OBERSTAR. They are not working hard enough.

Tell me what you have done. What have you accomplished?

Ms. DOUGLASS. Yes. Now we have come to—let me look at this. We have come to an agreement. The FAA and PHMSA have come to an agreement on issuing a notice of proposed rulemaking on lithium batteries. Among other things, one of the things we will do is require marking and shipping papers, class 9 marking, for lithium batteries. That will tell the pilot what is on the aircraft in terms of lithium batteries.

In addition to that, there are many different—

Mr. OBERSTAR. Can you agree upon how they shall be carried, on how they will be stored, on how they will be protected against overheating, against rupture, against explosion internally?

Ms. DOUGLASS. Yes.

Mr. OBERSTAR. What are those practices?

Ms. DOUGLASS. There are different kinds of packaging.

I guess I would like for Ted, who is more of an expert on that—

Mr. OBERSTAR. We are here to find the answers. I do not want the how-to's and the whatevers. I want to know what you have done and what you are going to do and what you are going to require in the future.

Ms. DOUGLASS. Well, we have reached an agreement, and I have a paper here that we have gone over with the FAA that tells us exactly what we are going to do.

Mr. OBERSTAR. You should have that at your fingertips. Tell me what it is.

Ms. DOUGLASS. Okay. We are going to require manufacturers to provide the results of the satisfactory completion of U.N. Design-type tests for each lithium battery and cell type. We are going to require current shipping descriptions for lithium batteries, for lithium batteries packed with equipment and for lithium batteries contained in equipment to specify metal batteries, including lithium alloy batteries, as appropriate, adopt shipping descriptions for lithium-ion batteries, including lithium-ion polymer batteries, lithium-ion batteries packed with equipment, including lithium-ion polymer batteries, lithium-ion batteries contained in equipment, and including lithium-ion polymer batteries.

Mr. OBERSTAR. Do those regulations distinguish between the different characteristics of those types of lithium batteries because they have different reactive characteristics?

Ms. DOUGLASS. Yes, I believe they do.

Mr. OBERSTAR. Okay.

Ms. DOUGLASS. I can go through this, but it is very detailed, and it is actually very long. It is very complex, and I feel—

Mr. OBERSTAR. You have practices for safe ground handling, for the safe handling aboard an aircraft and for the safe handling aboard truck and rail; is that right?

Ms. DOUGLASS. These are applying in the air situation.

Mr. OBERSTAR. What do you have for ground handling as in the situation that Ms. Hersman described, in the handling of a pallet? There was an accident and there was a fire.

Ms. DOUGLASS. Well, I am not aware of what we are doing on the ground on this sort of a package. I know that this is not intended right now to apply to ground transportation.

Mr. OBERSTAR. But the air transport does not end when the aircraft is on the ground. You need to deal with that as well.

Ms. DOUGLASS. There are regulations, but not as extensive as this because, like you said, the risk in the air is much different. The high consequence of the risk is the reason that we are considering doing all of these things.

Mr. OBERSTAR. I am very familiar with the risk in the air. I have spent 25 years working on it. I want to know, are you also publishing safe ground handling practices?

Ms. HERSMAN, don't you think they should do that?

Ms. HERSMAN. Chairman Oberstar, I think I have seen a draft of this agreement, and I think many of the issues that the Safety Board identified are addressed in the agreement.

With respect to the labeling and the marking and the appropriate packaging, I think that would be addressed; and that would certainly apply if they were on the ground, being loaded or unloaded. If they are going to be shipped in air transport, those

things would apply. So I think that does address the issue that you are concerned about.

Mr. OBERSTAR. Shouldn't ground handlers have particular training and guidance and direction and management in the handling of such cargo?

Ms. HERSMAN. Absolutely.

The important part is that it is marked and labeled appropriately so they can identify it as HAZMAT and know that they need to handle it properly, so that when it falls off the forklift, they do not immediately reright it and just ignore it. They recognize that there is the potential for overheating or for damage to those batteries. It should be marked and labeled like any other HAZMAT is labeled and not exempted from those regulations.

The draft agreement addresses a number of issues that the Safety Board has been concerned about. For example, making sure that on cargo flights, those hazardous materials are in crew-accessible locations, so that if there is an event, they can locate them easily - that they are not buried in the 14th row of that cargo aircraft.

Also, there is the testing and retention of those batteries. If there is an event or a fire, we want to make sure that those incidents are reported and that those batteries are retained so that the failure modes can be addressed.

The other side of this is not just on the cargo side, but it is also on the passenger side. You know, we all have more electronic devices now. It is educating passengers to make sure they understand that those batteries can become dangerous.

We have identified incidents where flight attendants have taken a smoking laptop, and fortunately, they were on the ground, because they opened the door and tossed it out the door as it was on fire. We certainly do not want that to happen in the air, so we need to make sure passengers understand the dangers of batteries, of transporting loose batteries and making sure those contacts are protected.

Mr. OBERSTAR. That is extremely important, and the progress made so far is important. Unfortunately, it has taken this long.

In your quick reading of the PHMSA proposal, is there anything missing?

Ms. HERSMAN. We want to make sure that there is a public education component and that there is an incident reporting component; those may be things that get incorporated as the draft moves forward. The Safety Board has been interested in those areas.

Mr. OBERSTAR. Let Mr. Chipkevich weigh in on that. He is a very thorough investigator.

Mr. CHIPKEVICH. Thank you, sir. One issue in there was the possibility of a requirement to use the U.N. Standards. I think harmonization with the U.N. requirements is important for international shipments, but I think establishing our own standards and then referencing and using the U.N. standards is perhaps more appropriate than enacting legislation, because if we cannot get the U.N. to be as stringent as we believe is necessary, then additional regulatory action could be taken by the FAA and RSPA.

Mr. OBERSTAR. I appreciate that answer. That is where I was leading to.

Madam Chair, I will conclude here because we have got votes, and other Members have questions they may want to ask.

We ought not to be the follower. We ought to be the leader. The world looks to the U.S. FAA as the gold standard for safety and to our NTSB as that impartial standard setter without regard to benefit-cost analysis.

You set the standard for what is the most important thing we need to do, and then the regulatory agencies carry it out. So we are counting on you for raising the bar and for setting the standard.

Ms. DOUGLASS. Chairman Oberstar, may I just say that I believe this is a new day in PHMSA in the way we look at these activities. It is a new administration. I have only had a few months there to review some of these things, but I have found our people to be very interested and very supportive in moving forward in this regard, and they have been very, I think, cooperative, and the intent is to move forward.

I am sorry. I misunderstood when you said ground transportation. I thought you meant this was applying across the board to all transportation.

Mr. OBERSTAR. We will come to that next.

Ms. DOUGLASS. Okay.

Mr. OBERSTAR. Yes, PHMSA has come a long way since you first testified before this Committee.

Ms. BROWN OF FLORIDA. We have three votes, and we are going to stand in informal recess while we go and take those votes; and we will come back to continue the questioning.

We officially will stand in recess.

[Recess.]

Ms. BROWN OF FLORIDA. We will officially come to order, and I will go to Mr. Shuster.

Mr. SHUSTER. Thank you.

Ms. HERSMAN, on the topic of wet lines, do you have any facts and figures on the number of fatalities and injuries? Has it been something that has been on the increase? Has it been static? Has there been a decrease over the last 3 years or several years?

As to whatever you have, can you give me a little information on that.

Ms. HERSMAN. I think that question could probably be best answered by PHMSA. We do not retain any data regarding accidents. We do investigate single-accident events, but we do not retain the national data.

Mr. SHUSTER. Would Ms. Douglass have that information?

Ms. DOUGLASS. Yes, I have some information on that.

Basically, over the last number of years—I believe it is about 7 years—there have really not been any deaths or injuries due to wet lines. There have been incidents where the wet lines have been sheared off. There have been incidents prior to the 7 years where there were deaths and injuries, not a large number of deaths and injuries, but there have been problems.

I think Debbie described them in her testimony.

Mr. SHUSTER. Were there changes several years ago that stopped some of the fatalities, or is it just that you have not had an incident or had anything significant happen where there has not been

a fatality or a significant amount of injuries in the last several years?

Ms. DOUGLASS. Ted can correct me if I am wrong, but I do not know of anything that has changed that would have caused there to be fewer problems with wet lines.

Mr. SHUSTER. Ms. Hersman, you said that the NTSB does not keep any statistics. When you are talking about injuries and fatalities, isn't that something that you would look at in your analysis to see—I mean, you look at a situation, and I saw the pictures; but if it is very small or, statistically, if it is not significant, doesn't that go into your analysis on making recommendations on changing the system or on how to correct a problem?

Doesn't that need to be addressed?

Ms. HERSMAN. I think that is a great question, and I think that is one of the challenges that the NTSB has, because we are charged by Congress with investigating all aviation accidents. We actually do have a good database on civil aviation accidents because that is part of our mandate. But with respect to the other modes of transportation, we do not have to investigate every single accident, and so we do not collect the data. That is really a function of DOT.

But you are correct in trying to figure out what the consequences of these accidents are and how prevalent they are.

One thing that we did note is that there is a lot of underreporting with respect to these events because there is not necessarily a box for the law enforcement official to check when filing a report of an accident-- a box to check that says it was a wet lines accident. We do know that when PHMSA looked at the data between 1990 and 2001, they did find, over a hundred events and seven fatalities within that time period.

So we were, frankly, a little surprised, since there really have not been any changes enacted, that since 2001 there were not events that could be reported.

Mr. SHUSTER. Right. I mean, the underreporting of fatalities and injuries, that is generally always reported in an accident, so it has got to be out there somewhere.

Ms. HERSMAN. Sure. Fatalities are actually all reported, but injuries are not. That is actually a sampling system, but that is a DOT function as well.

With respect to fatalities, we may not know exactly what the cause of the accident is. For example, in NTSB accidents, we are very thorough, we look at fatigue and we look at a lot of other issues; but on the police reports that get reported, they might not check all of the boxes because they just do not exist, and their investigations may be very cursory.

Mr. SHUSTER. I guess, not that it came directly from you, the NTSB has recommended that these trucks be retrofitted with a purge system on it.

My question is, have you looked as to what kind of—because I understand, if you look at retrofitting these trucks, there is some cause to be concerned about the hazards to the people who are retrofitting them because there is ignition from residual vapor and things like that.

So, when the NTSB is making a recommendation to correct a problem, are they then looking at whether their correction would cause hazardous problems to people?

Ms. HERSMAN. Congressman Shuster, I think we are always concerned about unintended consequences, but our recommendation is not actually to retrofit with the purging system. Our recommendation is to prohibit the carrying of hazardous materials in the external piping of cargo tanks, such as loading lines that could be vulnerable to failure in an accident.

It is really up to the regulatory body to determine how they want to do that, but I am not aware of any events, fatalities, involved in the retrofit.

Mr. SHUSTER. Well, that is my understanding, which is that your recommendation to not carry fluids in those pipes will force them to put a system on the tanker to be able to purge those lines; so, once again, with the unintended consequences of saying, "We need to get that fuel out of the lines," now, all of a sudden, we have to do something else that may cause a hazardous situation.

Ms. HERSMAN. We are not aware that it would cause a hazardous situation or any injuries or fatalities involved in the retrofit.

We did visit with one company, Sunoco, that has actually either installed or has retrofitted this purging system on 100 percent of their fleet. Sunoco told us that it was a business decision for them, that if they had one incident involving the rupturing of the wet lines, it would pay for the retrofitting for the entire fleet.

Mr. SHUSTER. Right.

If I could, I will just ask one more question on top of this one.

When you have a disagreement, again, between the NTSB and DOT, do you revisit your recommendations? Do you toe the line? I mean, if DOT is coming up with a different point of view, as it appears in this case they have, do you revisit that and change your recommendation or try to take other things into consideration from their viewpoint?

Ms. HERSMAN. Absolutely. We made our recommendation back in 1998, and it was actually following some regulatory activity that RSPA—at the time the predecessor of PHMSA—had put on.

I think, if they were able to come to us and to provide an acceptable, alternate solution to our recommendation, we would certainly embrace that; but at this point in time, they have not fulfilled either the letter or the intent of the recommendation to prohibit hazardous materials in those lines.

We know that the likelihood of an incident is very low, but if it does happen, it is catastrophic.

Mr. SHUSTER. Okay.

Ms. Douglass?

Ms. DOUGLASS. Could I comment on that?

We have been looking at this situation, and we are very well aware that Sunoco has retrofitted and has bought a partially new fleet and retrofitted, and we have learned the cost of that. Sunoco does believe it is cost beneficial to that company to do that, so we have decided to take a look at that whole issue again and see if there are different ways.

For example, could the line be purged? Maybe you would not have to retrofit, but maybe you could purge the line at the loading

facility. You could let it drain out and—I do not know; there may be different things that we could do along those lines.

On the one hand, when there are deaths or injuries, it is hard to do the cost-benefit on that. On the other hand, we are hearing some exciting, you know, stories from Sunoco on their ability to—and the costs do seem to be coming down on some of these devices. So we are looking at that.

We work back and forth with the NTSB on these issues, and we try to understand what they are looking at, and we take that very seriously. I think that the problem comes in oftentimes because we do have to do a cost-benefit analysis on a regulation, but I think this Agency is willing to move forward on some of these things and is looking at some of these options that we might have.

Mr. SHUSTER. Okay. Thank you very much.

Thank you, Madam Chair.

Ms. BROWN OF FLORIDA. Thank you.

Mr. Nadler.

Mr. NADLER. Thank you.

Ms. Douglass, according to Committee staff, until yesterday, PHMSA had repeatedly told staff that there were only two wet-lines incidents from 2001 to the present; is that correct?

Ms. DOUGLASS. I believe it may be correct.

Mr. NADLER. It is.

Yet we now understand that, between 1990 and 2001, there were 148 incidents involving wet lines.

Now, when the Committee staff had its detailee, who was a professional HAZMAT inspector for DOT, comb through PHMSA's database, they found that nearly 70 wet-lines incidents were discovered. This only applies to gasoline incidents. Staffers have since found 43 more involving other hazardous materials, and I believe that PHMSA has confirmed these numbers.

Given this, why was it that PHMSA could only tell us about two of them until yesterday?

Ms. DOUGLASS. Well, I asked that question myself, but my understanding is that this comes from the hazardous materials, HMIS, our incident data. I guess there are something like 19,000 reports in that; and we do not go through each one of those reports in detail to determine whether it is, let us say, a reportable incident.

Mr. NADLER. So you have no idea how many wet-lines accidents have occurred?

Ms. DOUGLASS. We do not go through—

Mr. NADLER. Answer my question, please.

So you have no idea, therefore. Is that what you are saying?

Ms. DOUGLASS. No. No.

Mr. NADLER. You have no idea how many wet-lines incidents have occurred?

Ms. DOUGLASS. I do not have any idea how many incidents occurred, but in terms of a serious incident, we do know, and in terms of injuries and deaths, we do know.

Mr. NADLER. Well, how do you know about a serious incident if you do not know the number of incidents, generally?

Ms. DOUGLASS. Because those are reported to us as serious injuries.

Now, let me just say that I am concerned—I did not realize that we did not go through all of those, and it is very staff-intensive to do that, but I think that we do need to reevaluate our data analysis and how we are going to do this.

Mr. NADLER. Well, it seems to be so staff-intensive that it took one person from the Committee to find 103 incidents.

Ms. DOUGLASS. Okay. I thought we found 32 or something, that it ended up being 32.

Mr. NADLER. There were 70 gasoline incidents and 33 more involving other hazardous materials.

Let me suggest one incident that PHMSA failed to report, which our staff person discovered, which was in 2006, in Georgia, where an Army Ranger was commended for his actions in pulling a woman from her burning vehicle after she had hit a wet line and the vehicle had ignited.

The incident cost \$280,000 in damages. If it had not been for the Army Ranger, we might have had a fatality. The company wrote in the accident report, "The only solution to preventing this type of occurrence would be the ability to clear products out of the loading or unloading lines of the petroleum tanker. If the 60 to 80 gallons of petroleum had not been present, then the initial fire would not have been created. The incident would have been much less severe."

So, in other words, this is one of the nonserious incidents that you did not report?

Ms. DOUGLASS. I would definitely call that a serious accident.

Mr. NADLER. Well, it is one of the incidents that was not reported.

How is it that PHMSA could not have identified these incidents without the help of Committee staff? Perhaps more importantly, if you do not know about these incidents, how can PHMSA be made aware of accident trends if you cannot read your own database?

Ms. DOUGLASS. Well, I think you have got a good point that we are not putting enough effort into data analysis. I am very concerned about it, and I have asked our senior policy analyst to look at that, to review the data quality and to understand what is happening, that we would not have captured that.

Mr. NADLER. But in addition to that—

Ms. DOUGLASS. And we are putting some additional staff there as well, and we may need to put more staff.

Mr. NADLER. Good. As a result of the Committee's staff work in the last couple of days?

Ms. DOUGLASS. Yes.

Mr. NADLER. Now, you have done a cost-benefit analysis in which you concluded that the cost-benefit did not mandate that these recommendations of not using the wet lines for transporting flammable materials was just not worth implementing?

Ms. DOUGLASS. No, I do not think that is—I do not think that is what I said, but let me—can I explain that?

Mr. NADLER. Please, briefly.

Ms. DOUGLASS. We have limited staff, so we focus our work on items that we consider to be high risk, and I have outlined that in the testimony.

Mr. NADLER. All right. That is fine.

But my question is, your cost-benefit analysis concluded that it was not adequate to require purging systems on new trucks. Now, aside from the fact that the cost-benefit analysis was the benefit-cost ratio of 1.2-to-1, which would seem to indicate that it was cost-effective—put that aside.

If you do not know how many incidents there are, how can you begin to assemble a cost-benefit analysis?

Ms. DOUGLASS. We did not do a cost-benefit analysis, but because there were not any deaths or injuries and there were very few incidents—and our incident collection was wrong—we focused on things that were of higher risk, and we put our resources into that.

Now, since I have been there in the last 3 months, I have been going through the NTSB recommendations, and we have been talking about all of these things, including the wet lines issue. I did learn that a lot of very good information about the Sunoco—and we are doing more research on, or more analysis on, what the possibilities are on wet lines. And it may very well be that we can find some cost-beneficial regulations to move forward on.

Mr. NADLER. I am puzzled, though. I am holding your cost-benefit analysis in my hand. It was done in 2006. It says Cost-Benefit Analysis.

Ms. DOUGLASS. I am not aware of it. I am sorry. I am not aware of it.

Mr. NADLER. Does the analysis show that the benefits outweighed the costs at a 3 percent discount rate? There are three alternatives.

The first one is purging system on new trucks starting on January 1, 2008. The total benefits are at a 3 percent discount rate of \$44 million and change. The total cost at a 3 percent discount rate is \$36 million and change. The benefit-to-cost ratio, 1.2 to 1.

Purging system on trucks manufactured on or after January 1, 2002, retroactive: Benefit, \$64 million; cost, \$51 million; benefit-to-cost ratio, 1.25 to 1.

Purging system on new and existing trucks, all new and existing trucks: Benefit, \$81 million; cost, \$73 million; benefit-to-cost ratio, 1.11 to 1.

Then it goes into the assumptions made here. One of the assumptions, by the way, is that a fatality is worth \$3 million per life. The current value is \$6 million per life. I do not know if that is a high or a low estimate.

Ms. DOUGLASS. I have not seen that piece of paper or heard about it, but Mr. Willke may be able to shed some light on that.

Mr. WILLKE. Congressman, the first thing I want to say is that we have not been looking at this because there have been no deaths or injuries that have been brought to our attention.

I think that you are absolutely right; we need to do a better job at looking at the data to analyze it. We get about 15,000 incidents a year, and we need to look at the narratives of each of these incidents in order to determine what their real cause is.

I am not fully aware of the benefit-cost, but my understanding is that the benefits did not justify the costs, and there was a lot of public comment that the cost of these systems were understated in the benefit-cost analysis. So my understanding is that, at that time, there was not enough justification to go forward.

But I think we are in a position now to take another look at the data, to take a look at the experiences that have occurred within the last 5, 6 years and to determine whether or not we should take another look at this.

Mr. NADLER. Well, I certainly hope you do.

Let me just ask Ms. Hersman if you want to comment on what Mr. Willke just said.

Ms. HERSMAN. The Safety Board has long been on record with this recommendation.

Regardless of whether or not there are fatal accidents, I think there are enough incidents that there is the ability to move forward. It just takes one accident to have a catastrophic consequence.

What we saw in Yonkers was not just the fatality, but also the complete destruction in Yonkers, New York, of that overpass and of the highway that supported it as well.

So, if you factor into the cost-benefit analysis damage to infrastructure and delays, you might be able to make a better case.

Mr. NADLER. I just have one final question in this round because I understand there may be more rounds of questioning.

For Ms. Douglass or Mr. Willke: I am fascinated by this use of benefit-cost analysis and of trying to give a figure in terms of the benefit-cost analysis to a human life. I mean, there is a certain category of accidents. It is a very interesting category which may be rare—although this one does not seem to be that rare—but when they occur, they could be catastrophic.

Certainly, this could be catastrophic. You could wake up tomorrow and find out that 25 people were killed in an accident. We have seen that with some of the railroad stuff, where things were not done until there was something mandated after a lot of people were killed, even though the authorities had been resisting the safety implementation for many years until that occurred.

So my question is, who do you know who would volunteer to tell the next of kin when the accident occurs, as it certainly will at some point, that the costs did not outweigh the benefits?

Ms. DOUGLASS. What do you want me to say to that?

Mr. NADLER. I do not know.

Ms. DOUGLASS. What would you like for me to say?

Mr. NADLER. I do not think there is any answer to that, which is why I asked the question.

Ms. DOUGLASS. There is not.

Ms. BROWN OF FLORIDA. Thank you, Mr. Nadler.

Mr. NADLER. Thank you.

Ms. BROWN OF FLORIDA. We are going to go to Ms. Richardson, please.

Ms. RICHARDSON. Thank you, Madam Chairwoman. I almost hate to say I have two questions for Ms. Douglass. I think she could probably use a break.

But I have two very brief questions, ma'am.

According to the testimony of Dr. Donaldson, the Senior Research Director for the Advocates for Auto and Highway Safety, there must be a greater dialogue between the Federal Motor Carrier Safety Administration, as well as your administration. I understand your organization is a small agency that coordinates with several other agencies.

Can you tell me if you have the capability to fulfill one of Dr. Donaldson's recommendations, which is specifically to require training and a security plan criterion that would be applied by your organization for motor carriers and approved, stored and audited?

Ms. DOUGLASS. If we have the ability to talk with the Motor Carrier Safety Administration about this—we do talk with them quite often.

Ms. RICHARDSON. Have you fulfilled the recommendations of requiring specific training and specific—

Ms. BROWN OF FLORIDA. Excuse me.

Ms. DOUGLASS. Would you please pull your mike forward.

Ms. DOUGLASS. Okay. Are you talking about a TSA, Transportation Security Administration, requirement?

Ms. RICHARDSON. I am talking about in reference to Dr. Donaldson's testimony. Have you reviewed that?

Ms. DOUGLASS. I have not seen that.

Ms. RICHARDSON. Okay.

Ms. DOUGLASS. I would be happy to get back to you on that.

Ms. RICHARDSON. Okay. That would be fine. If you could, get back to this Committee, to the Chairwoman.

Ms. DOUGLASS. Sure.

Ms. RICHARDSON. Okay. Thank you.

My last question is—one of the things I always find interesting as a new Member is, when we have one panel, the next panel comes up, and then we do not have an opportunity to really hear your feedback back and forth.

The American Trucking Association stated in their testimony, which I hope you have had an opportunity to have an understanding of, that a carrier should not be responsible for transporting undeclared hazardous materials, where a shipper neither labels the package nor presents a hazardous material shipping paper to the carrier prior to transportation.

What is your response to this? In your opinion, who has the duty to ensure that the shipping papers are accurate and to inspect the package prior to taking possession?

Ms. DOUGLASS. Well, I believe that our position on this—and Ted, correct me if I'm wrong on it—but I believe our position on this is that the carrier does not have that responsibility.

They have a responsibility to—if they had a reason to know that this would be a hazardous material, and it was not properly marked or packaged, then they would have that responsibility; but if they had no way of knowing that, I do not believe we would cite them as violating the regulation.

What we would do is—undeclared HAZMAT is very difficult to find. And we have had a number of investigations this year, and we are trying very hard to identify where undeclared comes from. It is a variety; it comes from a variety of sources.

Ms. RICHARDSON. Ma'am, I have got 1 minute and 30 seconds left.

You mentioned if they should know. What would those conditions be that they should know even if it were not properly labeled or did not include the paper?

Ms. DOUGLASS. There could be—I do not know—perhaps a leak or a bad smell or something like that. It might be an indicator that there is a HAZMAT in there.

There are probably other ways that—

Ms. RICHARDSON. Do you have a process in place with the carriers to assist them to anticipate that or to know that that problem might lead to this issue?

Ms. DOUGLASS. We do a lot of public outreach on undeclared HAZMAT in a number of different ways, but—through our Web site and through training and through seminars and that sort of thing, we do reach out on undeclared HAZMAT. It is a huge issue for us.

Ms. RICHARDSON. I would recommend that you follow up with the association and also with the unions that support this area to ensure that they feel the same satisfaction.

Ms. DOUGLASS. Okay.

Ms. RICHARDSON. I yield back the balance of my time. Thank you.

Ms. BROWN OF FLORIDA. Thank you.

Ms. Douglass, I just have a couple of questions, and then we have a couple of more rounds.

In the SAFETEA-LU legislation, Congress doubled the funding for the Firefighter Training Grants Program from \$14.3 million to \$28.8 million. It was the understanding of Congress that the DOT would increase the registration fee to finance the higher authorization, if necessary. This did not occur. As a result of the amounts, we do not have sufficient funds.

On February 13, 2009, Chairman Oberstar and I sent a letter to Secretary LaHood, urging him to increase the fees to fund the program at the authorized level.

Can you tell me where we are with it?

Ms. DOUGLASS. Yes. We sent a letter back to you on—I think it is dated May 5, so it may not have worked its way through your system yet. But there seems to be a bit of a misunderstanding on that.

We do have enough money in our grant program. We have \$28.3 million to fund the program for this next year. The process is that—we are all set for this next year for the funding. We have got the \$28.3 million and it will go out.

Next year, into the next fiscal year, early on, we will issue a Federal Register notice that asks, or requires, the companies to send in a certain amount of money to reach the next year's amount of \$28.3 million. We do that each year. However, in some years, we have moneys left over that are not actually spent by the States.

If those moneys that have gone out are not spent, they actually come back to us, and so we do not need to collect as much money the next year. Sometimes we end up overcollecting, so we end up with a pot of money that is enough to fund the \$28.3 million.

We work very closely with OMB to make sure that we do have the right amount of money each year to put into the grant program. But we fully fund the grant program.

Ms. BROWN OF FLORIDA. Do we do the full authorization here as far as your staffing? Because my understanding is, you only have

35 employees, and some of the issues that have been raised today show that—

Ms. DOUGLASS. On the enforcement program, we actually have 35 inspectors and then an additional 7 supervisors who also can do inspections. That is 42. We do about 2,000 inspections a year.

Then, of course, in addition to that, the FAA has inspectors who look at airlines, at airline issues on HAZMAT. It is the same with rail and the same with the Motor Carrier Administration, and of course, they have the MCSAP and the State Highway Patrol.

We primarily go to shippers and look at the markings and packaging to ensure that they are correct. And we have asked—not asked for; we have in our 2010—let's see, our 2009, we have additional inspectors; and in 2010, we will be adding all together about ten new inspectors and then about five individuals for other programs, like in data analysis and also in the grant program, because it has run from \$14 million to \$28 million in a couple of years.

Also, in our special permit program, we are adding some additional staff as well.

So that is where we are right now on staff.

Ms. BROWN OF FLORIDA. So you are comfortable with the level of staff?

Ms. DOUGLASS. Well, I would anticipate that we will continue to ask for an increase over the next few years, of staff.

Ms. BROWN OF FLORIDA. Okay. Just a couple of other questions.

How much hazardous material is transported on a daily basis? Do you know?

Ms. DOUGLASS. Well, I think it is about 1 million shipments daily, 1.2 million shipments daily. It is a lot. You know, there is a lot of HAZMAT.

Ms. BROWN OF FLORIDA. Did you want to respond to that?

Mr. WILLKE. As to how many shipments are done per day, you know, we do not know enough. We have guessed that the number of shipments is about 1 million shipments per day, but we really do not know. It is one of the reasons why we would like to do more data analysis, looking at commodity flows in this country, to see if we can figure out where hazardous materials are flowing and what we need to do to address the risks and to help the emergency response community deal with it.

Ms. BROWN OF FLORIDA. Well, you understand why we feel that we need to get on top of it, if we think about 9/11. I mean, everybody out there is not our friend, and we need to kind of plan and prepare beforehand. And we need to know how this hazardous material is flowing and how we can best protect our mutual constituents.

Mr. Shuster.

Mr. SHUSTER. I would like to make a couple of comments.

We need to make sure we do not lose sight, as I said in my opening statement, of the folks who move hazardous materials around this country. It has been a remarkable safety record, remarkable, and if you want to look at things—I mean, we are never going to be able to make it 100 percent. We wish we could, but we cannot.

If we want to get to a point like that—for instance, on our highways today there are over 40,000 people who are going to die this

year. It is tragic, but it happens. We have to do a cost-benefit analysis and be realistic in our approach to this.

Again, roughly 109 people will die today on the highways in America. Now, if you want to not have 109 people die on the highways of America, a way to stop it is for nobody to drive. So if you want to have a 100 percent record on hazardous materials, then let's stop shipping them. Then people will have water in their systems they cannot drink because they will not have the chlorine to clean it.

So we have got to look at this in a realistic way; and the rhetoric, I think, needs to be turned down a bit. When you talk about hazardous materials, all of a sudden, everybody gets worked up.

Ms. HERSMAN, you say "catastrophic." A death is certainly bad. It is tragic. What is your definition of "catastrophic" in a situation like this? Because I guess we have looked back, and there have been deaths, and that is terrible; it is a tragedy. What is "catastrophic"? What is your view—or your definition, I guess, of "catastrophic"?

Ms. HERSMAN. Unfortunately, the Safety Board is charged with looking at things that are catastrophic. I just came from a public hearing that we are having on the 50 fatal accident that happened in Buffalo, and while as a whole the aviation system is very safe, we are still investigating each accident to learn from them and make improvements.

Statistically, we do not have a lot of fatal aviation accidents, but what the Congress has asked the NTSB to do is to investigate accidents, to find the probable cause and to make recommendations to prevent them from happening again.

Mr. SHUSTER. Right.

Ms. HERSMAN. So, for us, a catastrophic result is when it is a high-consequence event.

The challenge with the wet lines is, they were not really designed initially to hold the product going from the rack to the gas station. The tankers were top-loaded. When that was changed, they ended up bottom-loading them. Now they are carrying that product in what was intended to be a sacrificial line. It is designed to break away, but it was not ever supposed to have product in it when it was first designed.

So I think that is the challenge. We have found a vulnerability and a weakness. In lining up the wet lines of a tanker and cars we found a vulnerability. For us, a catastrophic outcome is one where there is likely to be a fatality if things go wrong.

Mr. SHUSTER. All right. I mean, words matter, and when you say "a catastrophe"—I mean, Katrina was a catastrophe. 9/11 was catastrophic. Certainly, it is terrible if a loved one dies.

But, again, as people who are looking at these issues, we have got to make sure of the words we use—because we say a "catastrophic event" and one fatality is bad—but thousands of people are not dying, and the fact remains that this is a remarkably safe industry that has been moving these materials around.

So, again, we want to try to improve things, but we have got to look at them and do a cost-benefit analysis. Or, as I said—turning back to our highways, you want to have zero fatalities—either ev-

everybody is off the roads or we drive 10 miles an hour, and that makes no sense to do that because we will ruin our economy.

So I just want to point out that, again, there are situations. We are looking for improvement, but the transportation industry in this country has done a remarkable job of moving hazardous materials around in a very, very safe manner.

I yield back.

Mr. HARE. [Presiding.] Thank you. I guess I am the temporary Chair here. I told the Chairwoman I would try not to mess it up too awfully while she was gone.

I have just a couple of questions.

Ms. Douglass, most of the HAZMAT incidents occur during loading and unloading operations, as I understand it. What is PHMSA's attitude to this, and what are you doing to address this issue?

Ms. DOUGLASS. Do you want go ahead and answer this?

Mr. WILLKE. Congressman, if I may—

Mr. HARE. Sure, you may.

Mr. WILLKE. Loading and unloading represents one of the highest—

Mr. HARE. Is your mike on? I am sorry.

Mr. WILLKE. We have identified very high-potential risky events—fire aboard aircraft, loading and unloading—and we are focused very intensely on loading and unloading. It represents a very high fraction of a number of serious incidents that occur in this country.

About 25 percent of all of our serious incidents occur in loading operations or in unloading operations, and another 25 percent occur en route, accidents where loading is a factor in that. So we are intensively addressing this issue in a couple of ways.

We have entered into rulemaking. We are looking at best practices for loading and unloading, and we are looking at incorporating specific standards for loading and unloading operations, for transfer equipment, the training of employees, and emergency shut-off equipment. We believe these measures can dramatically improve the record on loading and unloading.

Mr. HARE. In 2003, PHMSA issued a final rule that defined "transportation" to include loading and unloading operations while the carrier is present in transit and storage incidental to movement.

Does the NTSB believe that PHMSA should have the authority, as provided in statute, to issue regulations governing loading and unloading operations at fixed facilities when the carrier has left the premises, such as at a fixed facility?

Ms. HERSMAN. We believe that PHMSA does have the authority to regulate that right now. It is just a question of whether or not they choose to exercise that authority.

Mr. HARE. So, to clarify, your concern is with the DOT's authority, not with the authority that OSHA has to regulate the safety and health of workers; is that correct?

Ms. HERSMAN. We do not have specific concerns about OSHA's authority; we want them to exercise the authority they have. We have made recommendations to OSHA on this issue, too. We think that there is a place for OSHA with respect to things like PPE, and

if there is an accident, to have provisions to communicate that there is an emergency and to address emergency shut-off valves.

We definitely think there is a role for OSHA, but we do think that the DOT does have the authority to regulate loading and unloading. What we would really like to see is for PHMSA to codify their recommended best practices for loading and unloading, because right now they have those best practices, but they are not enforceable. We would like to see them be able to enforce their best practices.

Mr. HARE. So do you recommend that the practices of PHMSA's published address address these issues?

Ms. HERSMAN. Yes, we think they need to codify those.

Mr. HARE. Ms. Douglass, if I heard you correctly—and I think I did; if I did not, you can give me the correct figures—in 50 States, there are nearly 300,000 HAZMAT entities; is that correct?

Ms. DOUGLASS. I am not sure about—about 300,000 entities. Do you know if that is right?

Mr. WILLKE. We know that there are over 100,000. We think there could be as many as 300,000 entities that we regulate under the hazardous materials safety regulations.

Mr. HARE. How many inspectors are there per region?

Ms. DOUGLASS. There are about—an average of 7 per region. Some have more and some have less because there are about—there are 5 regions and 35 inspectors and another 7 in supervisors.

Mr. HARE. So, if my math is correct, I think you testified that there are about 2,000 inspections done per year; is that correct?

Ms. DOUGLASS. Uh-huh.

Mr. HARE. So, if there are 300,000 entities that you have out there, with the inspectors that you have, it would take a lot of years, correct, to be able to inspect all of the places that you need to inspect?

Ms. DOUGLASS. Right. Exactly.

Mr. HARE. So are you advocating for additional inspectors?

Ms. DOUGLASS. We asked for additional inspectors and we got additional inspectors, and we are likely to ask for some additional inspectors.

Mr. HARE. How many do you think it would take to do the job the way you want to have it done as correctly as we can do it with the safety of people at stake here?

Ms. DOUGLASS. I just do not have an answer for you on that. We have discussed this and discussed it. How many inspectors do you need to do a good job?

We think we are doing a really good job as it is, but we can always do more. We can always do more inspections, and we can always use more inspectors.

But I do not know what the right number is. I wish I could give you a formula and tell you. If you told me that you thought it was important to go to every one of those 300,000 facilities in a year, I can figure out the math about how many inspectors we would need. But, you know—

Mr. SHUSTER. Would the Chair yield for a point?

Mr. HARE. I certainly would.

Mr. SHUSTER. In my notes, I have that although you have 35 inspectors and are authorized at 15 more—

Ms. DOUGLASS. Right.

Mr. SHUSTER. —the other modes—the FAA, the Federal Motor Carrier, the FRA—all have inspectors also that, by law, have to enforce these HAZMAT laws and requirements.

Ms. DOUGLASS. Yes.

Mr. SHUSTER. There are some 360 inspectors out there, so you are not the only ones doing it.

Ms. DOUGLASS. That is true. But those are out on the roads or out on an aircraft or on a rail system. But generally where we do inspections is like at the shipping facilities, at the chemical manufacturing facilities, at the specialty manufacturing facilities.

Mr. SHUSTER. Sure, but you are not the only ones out there. My point is, there are other people looking over your shoulder and around the bend, at different modes.

So I yield back.

Mr. HARE. Just two final questions.

On the question, Ms. Douglass, that I was asking Ms. Hersman about, Is this something that PHMSA plans to address, do you have any objections to codifying recommended practices in the regulations?

Ms. DOUGLASS. We have no problem with that, and in fact, we are in the process of doing that.

Mr. HARE. That is great. Just one last question:

The Institute for Makers of Explosives and the American Trucking Association have taken the position that the Department of Transportation should be required to notify both the carrier and the shipper before a package is inspected.

I wonder, from your perspective, what impact this would have on inspections.

Ms. DOUGLASS. I think this would put us in a difficult situation in terms of our inspections.

Ted, I think you are in a better position to comment on that.

Mr. WILLKE. Congressman, we agree with the idea that if the problem is with the shipper, then whenever there is a violation, it should be addressed with the shipper and not with the carrier. The problem is that, especially in roadside inspections, the citation is often given to the carrier, partly because it is the practice of the particular State where it is done.

We believe that there are ways to address this issue. We are working with the Commercial Vehicle Safety Alliance, which is an association of State troopers and inspectors. We believe that there are ways for us to improve that situation, for example, requiring that the shipper be identified whenever there is a citation for a hazardous material incident.

So we believe that there are ways that we could work on it to correct that problem. Our concern is that we would not want to unnecessarily delay shipments by having to identify the shipper at the time a stop is made. So a stop that only takes a few minutes might take several hours if we had to also identify the shipper and contact the shipper at the same time.

Mr. HARE. Thank you.

The Chair recognizes Ms. Norton.

Ms. NORTON. Thank you very much, Mr. Chairman.

This question is probably for both Ms. Douglass and Ms. Hersman. This question is about trains carrying hazardous substances in the National Capital Region.

Federal employees and residents in this very dense region have lived with a continuous tension, most of it from a total lack of transparency on a subject of huge urgency involving hazardous materials. Let me begin by indicating just how serious this is.

I have just written a piece about how the American people after 9/11 did not ask for an answer to the question, Are we safe? It was, Are we safer from unpredictable incidents like, for example, 9/11, anthrax—even Katrina, which was in many ways predictable, but where you would not have known we had an understanding of how to look for danger and then move to take care of it.

I looked back at my files in preparation for this hearing, and found a letter I had written to then-Secretary Tom Ridge at the Department of Homeland Security. I happen to be on the Homeland Security Committee as well. That letter came after a notorious freight train accident occurred in South Carolina. It involved a 42-car freight train, which collided with a smaller, stationary train. What leaked out was deadly chlorine gas from one of three cars that was carrying liquid chlorine. Two freight cars were carrying another substance—cresol and sodium hydroxide.

Now, let me just indicate to you that this is happening—that this has happened in this region where you have no information except that you know that hazardous substances are being transported within 4 miles of the Capitol. You cannot get an answer. I am not saying a straight answer; I am saying an answer from the Federal Government.

So look at what happened in South Carolina. What happened in South Carolina is that, in 2005, seven people were killed. And they were killed not from the wreck; they were killed from inhaling fatal, toxic chlorine fumes. More than 200 had such difficulty in breathing that they had to be carried to the hospital. Fifty-four hundred people within a mile of the chlorine spill were evacuated. The Governor of the State declared an emergency in the entire county for approximately 10 miles around.

Now, I have no idea what is being transported here, but we are sure—indeed, it was very reliably reported—that substances of this kind were transported throughout this region, including as close to the Capitol as I just indicated. Here is where we have 200,000 Federal employees, giving us a greater Federal responsibility than we would have had in South Carolina. I have regarded it as the most pressing security matter facing the National Capital Region.

When the Federal Government would say nothing, the local government in the District of Columbia, which technically you might argue has no jurisdiction because we are talking about interstate commerce, not only had hearings but passed a law indicating that they must find a way around the densely populated District and this region.

The matter went to court, and something extraordinary happened. The defense was raised that the District of Columbia cannot enact laws affecting interstate commerce. Guess what? That is true virtually all of the time, and there is an exception in the way the courts have interpreted the commerce clause, and that is that a

local jurisdiction may enact legislation when there is a clear and present danger to people in the local jurisdiction and when the Federal Government refuses to move. So the Federal judge refused to throw the matter out, and there it stood.

For a long time, Homeland Security and the railroad refused to say anything even to the judge. There was an attempt to speak in camera to the judge. I mean, this was an outrage right here in the Nation's Capital.

The testimony could not have given anybody comfort. The regional vulnerability stemmed from 42 miles of track here, also in nearby Maryland and Virginia. I remind you that the Federal presence is located in the area I speak, in the District of Columbia and in these two counties. Over this area, without any denial from the railroad or from Homeland Security or elsewhere in the Federal Government, we learned that the most hazardous materials, chemical cargo including chlorine, ammonia, hydrochloric and sulfuric acids, traveled—travel—I do not know because I still do not know anything.

The testimony, uncontradicted, was that, depending on the wind conditions, an attack on one 90-pound railcar carrying ultrahazardous chemicals could release gases that would carry for 14 miles or more in various directions; and that could kill or injure up to 100,000 people in the city and in the region in a half hour, even those inside buildings. That was the uncontradicted testimony.

My question to you is, Are there freight cars with hazardous materials traveling today within 4 miles of the United States Capitol, where we sit?

Ms. DOUGLASS. I do not know the answer to that, but I do know that we have adopted some routing regulations with the Federal Railroad Administration, and there is a process now for determining routes. There is a computer model, and the railroads are supposed to consider the safest and most secure routes, and evaluate what alternatives they have in the area.

We will know the routes that they—

Ms. NORTON. Who is the "we" who will know the routes?

Ms. DOUGLASS. Well, the FRA, really, will know the routes that have been selected by the railroads.

Ms. NORTON. Now, I do not want to tell the terrorists what the routes are, but what bothered me and what still bothers me—and I am going to have to ask for an answer even if in a secure environment. What bothers me is that nobody in the Federal Government was willing to give an answer.

What you are talking about is something that we enacted, finally, when Congress changed hands, in the first bill ever enacted for public transportation security, which has included some freight security as well. There were instructions given to the appropriate agencies, but no one in this region has had any information about what has been done. And I am aware of what you are speaking of.

So my question to you is this: Are you willing to sit with this Subcommittee and with Members of the Homeland Security Committee in a secure meeting so that we can at least ascertain what, if anything, the government has done?

Ms. DOUGLASS. I can—we can do that if that is—you know, if that is legal and possible. I do not know the answer.

Ms. NORTON. I assure you it is legal. It is legal for any agency of the Federal Government to tell any Member of Congress anything any Member of Congress wants to know.

Ms. DOUGLASS. Then we can tell you.

Ms. NORTON. I asked for a secure meeting because I certainly am not interested in disclosing what we learned. I am not even interested in disclosing what we learned to members of the region who still live in fear because of the utter lack of transparency about whether anything is being done at all.

There were rumors that, well, yes, they are doing some rerouting. Who? What? Under what authority? This was before the bill was passed.

I ask you this question now because the bill has been passed, because that bill was passed last session and because there has been time for action to have been taken.

So, on the call of the Chair, I am asking if the Chair would arrange such a secure meeting for those Members who would be interested in attending.

Mr. HARE. Yes.

Ms. NORTON. Thank you very much. We will be in touch then, and I thank you for your generosity in allowing this question.

Mr. HARE. I thank the gentelady.

Well, let me thank this panel. I know you have been here a long time, and we are going to actually let you get out of here now, so I know that is going to break your hearts.

I would like to bring up our second panel now, but thank you so much for taking the time out to be with us today. We appreciate it.

Ms. DOUGLASS. Thank you all.

Mr. HARE. You are welcome.

While our second panel is getting ready, let me just introduce them.

We have Chief Jeffrey Johnson, who is the First Vice President of the International Association of Fire Chiefs; Ms. Elizabeth Harman, who is the Director of Hazardous Materials with the International Association of Firefighters; Mr. Mark Rogers, who is the Director of the Dangerous Goods Program, Airline Pilots Association, International; Mr. Robert—and I hope I pronounce this right—Petrancoستا, pretty good—who is the Vice President of Safety for Con-way Freight, and he is testifying on behalf of the American Trucking Association; Mr. LaMont Byrd, who is the Director of Safety and Health from the International Brotherhood of Teamsters; Dr. Gerald A. Donaldson, who is the Senior Research Director, Advocates for Highway and Auto Safety; and Ms. Cynthia Hilton, who is the Executive Vice President of the Institute of Makers of Explosives.

Let me welcome the panel. I would like to remind the witnesses that, under the rules of the Committee, oral statements are limited to 5 minutes, but your entire statements will appear in the record.

We are very pleased to have all of you here. Thank you for waiting. I know we had votes and some lengthy questions, but we are pleased to have you.

**TESTIMONY OF CHIEF JEFFREY D. JOHNSON, FIRST VICE PRESIDENT, INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, AND CHIEF, TUALATIN VALLEY FIRE AND RESCUE, BEAVERTON, OREGON; ELIZABETH HARMAN, DIRECTOR OF HAZARDOUS MATERIALS, INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS; MARK ROGERS, DIRECTOR, DANGEROUS GOODS PROGRAM, AIR LINE PILOTS ASSOCIATION, INTERNATIONAL; ROBERT PETRANCOSTA, VICE PRESIDENT-SAFETY, CON-WAY FREIGHT, ON BEHALF OF THE AMERICAN TRUCKING ASSOCIATION, INC.; LaMONT BYRD, DIRECTOR OF SAFETY AND HEALTH, INTERNATIONAL BROTHERHOOD OF TEAMSTERS; GERALD A. DONALDSON, Ph.D., SENIOR RESEARCH DIRECTOR, ADVOCATES FOR HIGHWAY AND AUTO SAFETY; AND CYNTHIA HILTON, EXECUTIVE VICE PRESIDENT, INSTITUTE OF MAKERS OF EXPLOSIVES AND CO-FACILITATOR, INTERESTED PARTIES FOR HAZARDOUS MATERIALS TRANSPORTATION**

Mr. HARE. I would now like to recognize Chief Johnson for his testimony.

Chief, welcome.

Chief JOHNSON. Good afternoon, Interim Chair, Ranking Member Shuster and distinguished Members of the Subcommittee.

I am Jeff Johnson, Fire Chief of Tualatin Valley Fire and Rescue, located in Beaverton, Oregon, and am the First Vice President of the International Association of Fire Chiefs, which represents nearly 13,000 chiefs across this country who are the leaders of the nearly 1.1 million firefighters and emergency responders that consist of firefighters, emergency medical technicians, and hazardous materials responders.

Today, I would like to thank the Committee for the opportunity to discuss the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration, PHMSA.

The transportation of hazardous materials is an integral part of the U.S. economy. According to PHMSA, there are close to 1 million shipments of hazardous materials daily. Most of the shipments arrive safely, but there are approximately 250,000 incidents each year. When these incidents occur, local fire and emergency services responders arrive to protect the public. Within the past few years, a number of new challenges have arisen to face emergency responders and HAZMAT teams.

Due to Federal policy, new breakthroughs in technology and the recent high petroleum prices, there has also been a new focus on alternative fuels. In the past 2 years, ethanol production and use have skyrocketed, and fuel-grade ethanol is now the number one freight rail commodity, by volume, in this country. In addition, more than 250 million gallons of biodiesel fuel are produced annually and are shipped in different concentrations.

Fire departments cannot use the same tactics and equipment they used before for petroleum-based fires. Instead, they must be equipped with the right equipment, including alcohol-resistant foams and tactics to respond to alternative-fuel incidents.

The terrorist attacks of September 11, 2001, also raise the specter of terrorism as a new threat for fire and emergency services. Local first responders will be the first on scene for an attack uti-

lizing a weapon of mass destruction, and a weapon of mass destruction is essentially a HAZMAT incident with intent and an attitude. It involves a larger area, with greater casualties and longer recovery duration than a conventional incident would.

Fire departments have spent the last 8 years preparing for a future WMD incident, but these preparations require the development of new skills and an increased commitment of time and resources. New technology can be both a help in dealing with these challenges and a challenge in its own right.

The Internet offers a wide variety of resources for emergency responders to access and to share information and then to report lessons learned. However, this information has to come from a trusted source and be validated to be helpful to responders. Both the International Association of Fire Chiefs and PHMSA have worked together in partnership to deal with these challenges.

In 2006, the IAFC joined with the Renewable Fuels Association, the International Liquid Terminals Association and others to create the Ethanol Emergency Response Coalition, or the EERC. Using funding from PHMSA and the U.S. Fire Administration, the IAFC worked with the EERC to develop training material and videos to educate responders about specific types of foam and tactics needed for responding to ethanol incidents. The IAFC also worked with the U.S. Department of Energy and National Biodiesel Board to develop similar training products to deal with the production, storage and transportation of biodiesel fuels.

PHMSA also uses its Hazardous Materials Emergency Preparedness Grants to improve the basic HAZMAT response capabilities for first responders. Authorized at \$28.8 million each year, HMEP grants provide financial and technical assistance to State and local HAZMAT planning and training programs.

The IAFC encourages the Subcommittee to require that these grants be used to train emergency responders to both the OSHA 1910.120 and to the NFPA 472 operations levels. The OSHA 1910.120 standard is the current Federal standard for HAZMAT response, but it has not been updated in the last 15 years. The NFPA 472 standard was updated in 2008 to include the weapons of mass destruction threat. Both of these standards complement each other, so we recommend mandating that PHMSA require HMEP funds to be used to train firefighters to both standards.

In 2007, PHMSA partnered with the IAFC to develop the National Hazardous Materials Fusion Center to use the Internet to share important information and training with HAZMAT teams around the country. This program is designed to link first responders and the private sector throughout the country and to allow data and the information network to share their experiences and information so that we may avoid problems in future responses.

In closing, the National Hazardous Materials Fusion Center also established risk teams. These risk teams go out and gather postincident information and share those lessons with HAZMAT teams who have yet to face those kinds of problems. While the National HAZMAT Fusion Center uses technology to better train and to prepare first responders, we recommend carefully examining new ideas. For example, we welcome the idea of the electronic tracking of shipments, but caution there are challenges in rural

America that technologically may not accommodate the implementation of this program.

Again, we would like to thank you for the opportunity to address this Subcommittee this afternoon. The IAFC sees PHMSA as a valued partner in helping the fire and emergency services to meet the challenges we face. We are especially pleased that the administration proposes a \$3.5 million increase in 2010 for PHMSA's HAZMAT safety program.

I would like to thank the Subcommittee for its continued support of our Nation's firefighters and EMS personnel.

Thank you.

Mr. HARE. Thank you, Chief. We thank you and your entire organization for the wonderful work you do in protecting our country.

Ms. Harman, you are next.

Ms. HARMAN. Thank you, Mr. Chairman and Ranking Member Shuster and Members of the Subcommittee here today.

My name is Elizabeth Harman. I serve as the Director of the Hazardous Materials Training Department for the International Association of Fire Fighters. I am pleased to appear before you today on behalf of the nearly 300,000 firefighters and emergency personnel who comprise our organization.

Our Nation ships more hazardous materials today than ever before. As the potential for serious incident grows, it is more important than ever to ensure that our Nation's emergency responders are properly trained and have sufficient information to conduct a safe and effective response. While the Department of Transportation has been an innovative leader in this field, changes are needed to increase the effectiveness of current HAZMAT response training programs and to improve hazardous materials identification tools.

The Nation's firefighters are the primary responders to incidents involving hazardous cargo; yet far too many firefighters are insufficiently trained. Only 29 percent of fire departments have trained all of their personnel in even the basics of HAZMAT response.

The lack of adequately trained personnel jeopardizes not only our lives and property, but it also has serious economic implications. A recent tractor-trailer crash in Pennsylvania led untrained first responders to unnecessarily shut down a major highway and evacuate 5,000 people when they misidentified a hazardous substance.

Under PHMSA's Hazardous Materials Emergency Preparedness Grant program, the IAFF received a grant to train instructors to deliver HAZMAT training to emergency responders. Our unique training program model provides real-world training HAZMAT response, delivered by instructors who are both certified fire instructors and certified HAZMAT responders. Our grant has enabled us to train nearly 2,700 instructors who have gone on to train an additional 59,000 responders, both professional and volunteer, in communities both large and small. Independent evaluations of the IAFF training have found our training programs to be highly successful and cost-effective, providing unsurpassed training at a low cost.

Despite this track record, our training program is restricted due to limited funding. Training requests regularly exceed our resources, a problem exacerbated by the current economy, which has

forced many communities to cut funds for training. Increased funding would help the States and organizations such as the IAFF to increase the number of students trained, as well as help fill the unmet needs of local fire departments.

Additionally, we are currently limited to training instructors to deliver HAZMAT training response in their own communities. While this model has proven valuable, its effectiveness is limited to the extent that a local fire department is willing to support the trainer's activities.

Our training program would be markedly improved by expanding training activities to include proven methods, such as direct student training and distance learning, to augment the train-the-trainer model. Additionally, eligible activities should be expanded to include funding for departments' backfill needs to ensure that the weak economy does not interfere with public safety.

In addition to providing sufficient funds to train a greater number of first responders, the department has a duty to ensure that responders receive the appropriate level of training. OSHA regulations identify several training levels depending on a worker's duties. Unfortunately, the level of training provided to emergency response personnel in many localities is the awareness level. Awareness training is intended to train employees who may encounter a HAZMAT incident to initiate a response sequence by contacting the appropriate authorities, which in most cases would be the local fire department.

The minimum level of training needed by first responders is operations level, which trains responders to protect nearby persons, property and the environment from the effects of the release. These responders are trained to contain the release from a safe distance, to keep it from spreading and to prevent exposures. Only one-fifth of fire departments have personnel certified at the operations level. Congress should ensure that all training provided to firefighters be at the operations level or greater.

In addition to bolstering its emergency response training programs, the department should explore improving the systems for identifying hazardous cargo. Firefighters currently rely on two simple but effective tools to identify hazardous materials during transportation—placards and shipping papers. These tools have generally proven successful because they are highly recognizable and are easy to understand.

However, placards and shipping papers also have serious limitations. They may be damaged, hidden or unreachable during an incident. New technologies such as an electronic freight management program, when combined with current identification systems, can help identify hazardous materials without putting responders at risk.

We are also supportive of establishing a commodity flow tracking system which will help State and local governments better prepare for potential emergencies. Whatever systems are developed must guarantee that they are readily accessible by incident commanders and kept up to date.

Finally, in addition to developing new technologies, we must continue to improve current HAZMAT response tools. Twenty-four-hour hotlines, such as CHEMTREC, provide emergency responders

with vital information during a HAZMAT incident. Such hotlines, however, are of little use to responders if they are unavailable at the time of an incident or if they provide insufficient information. The department may wish to set standards for such services such as requiring 24-hour access to a live operator, response guidelines and the ability to immediately connect a responder to manufacturers or experienced incident commanders.

Thank you for allowing us to share our views on improving our Nation's hazardous materials capabilities. I am happy to answer any questions that you may have.

Mr. HARE. Thank you very much, Ms. Harman, for being here. Mr. Rogers.

Mr. ROGERS. Thank you. Good afternoon, Interim Chairman Hare, Ranking Member Shuster and other Members of the Subcommittee.

I am Mark Rogers, a commercial airline pilot and Director of the Dangerous Goods Program for the Air Line Pilots Association, International. I also have a chemical engineering degree from the University of Illinois.

ALPA represents nearly 54,000 pilots, who fly for 36 passenger and all-cargo airlines in the U.S. and Canada.

Mr. ROGERS. [Continuing.] On behalf of our members, I want to thank you for the opportunity to provide our safety perspective on the carriage of lithium batteries as cargo on aircraft. Lithium batteries are a part of everyday life for millions of Americans, powering applications as varied as laptop computers, cell phones, flashlights, and cameras.

While the vast majority of lithium batteries shipped as cargo or carried aboard by passengers and crew members arrive at their destinations without incident, there have been numerous incidents involving overheat and fire aboard aircraft. These incidents have occurred both from batteries being carried in the cabin of passenger aircraft and for batteries being shipped as cargo.

With the Chairman's permission, I would like to ask for the showing of a brief video that demonstrates the potentially volatile nature of a lithium battery. This video shows the fire that erupted when a laptop's lithium battery which was being charged in an airport terminal spontaneously ignited. You will notice that once the first cell on the battery ignites, the generated heat causes the other cells to ignite as well.

[Video.]

When an incident occurs involving a personal electronic device in the aircraft cabin, the incident is likely limited to a single battery and is quickly discovered by airline cabin personnel. Testing conducted by the FAA has also led to the development of cabin procedures that will result in the successful extinguishment of a battery fire. We therefore believe the correct approach to address the hazards of batteries in the passenger cabin is improved training and procedures for cabin personnel.

I want to emphasize that we are not advocating for new restrictions on what passengers and crew members may bring aboard. ALPA does, however, have significant concern about the provisions governing the transport of lithium batteries as cargo on aircraft.

Both of the major types of lithium batteries have properties that pose a risk to aircraft if the batteries are not properly manufactured, packages labeled, or if the batteries are damaged.

Lithium ion batteries, which are typically rechargeable and power devices such as laptop computers and cell phones, contain a flammable electrolyte, resulting in a more significant fire following an incident than non-lithium battery chemistries. Lithium metal batteries, which are typically nonrechargeable and power devices such as cameras and flashlights, have been shown by the FAA to be unresponsive to halon, the extinguishing agent used aboard aircraft.

When substances or articles pose this kind of risk to aircraft their transport is normally strictly controlled under Federal regulations. Both lithium ion and lithium metal batteries, however, are exempt from many of the hazardous materials provisions. In fact, the flight crew would not even be aware of a pallet containing thousands of lithium batteries, whereas an adjacent five-pound package of flammable paint or dry ice would be subject to the full scope of the regulations. We believe these exceptions are inappropriate for a commodity posing a risk and having a history of fire incidents aboard aircraft, and we are asking that lithium batteries be fully regulated as hazardous material.

Furthermore, because of the inability for aircraft fire suppression systems to extinguish a fire involving lithium metal batteries, we are asking that the current ban on bulk shipment of lithium batteries on passenger aircraft be extended to all cargo aircraft until adequate packaging can be developed.

Testing has shown that even the heat from a suppressed cargo fire is sufficient to ignite a shipment of lithium metal batteries, and that once ignited, the fire will quickly spread to all batteries in the shipment. Until packaging is developed which will protect these batteries, both from damage and from external heat, we believe they should be prohibited in bulk quantities on all aircraft.

ALPA has long been an advocate of one level safety for cargo and passenger aircraft, and we find it particularly troubling that a commodity completely prohibited on passenger aircraft may be transported nearly unregulated on all cargo aircraft.

The full regulation of lithium batteries would have a significant positive impact on safety. Improved packaging standards would help prevent damage to the batteries. Dangerous goods labels would ensure that the shipments were recognizable worldwide as having the potential to cause an incident if mishandled.

An acceptance check would provide an opportunity to detect package damage or noncompliance with the regulations. Pilot notification would allow flight crew members to communicate hazard information in the event of an incident.

We do recognize that the danger from a single battery in a package in transportation is low. We caution, however, against providing exceptions to the regulations for small batteries based on this logic, as there is nothing to prevent hundreds or even thousands of small batteries from being consolidated together in the single shipment. In fact, a fire in 1999 on the ramp at Los Angeles International Airport, highlighted earlier by the NTSB, involved

two pallets, each containing over 120,000 batteries excepted from HAZMAT regulations.

It is only through full regulation of small batteries that the quantity of batteries at a single location or in a single cargo compartment can be addressed. Otherwise, the batteries are treated as general freight, and an airline is often not even aware of the total quantity of batteries or the risk they pose to aircraft.

In conclusion, I want to express ALPA's appreciation for this Committee's interest in the safe transport of lithium batteries as cargo on passenger and all cargo aircraft. Our recommended actions for incorporation to the FHMCSA reauthorization bill will greatly enhance the overall safety of moving these batteries through the transportation system.

Thank you for the opportunity to testify today. I would be pleased to address any questions that you may have.

Mr. HARE. Thank you very much, Mr. Rogers. And that was an incredible video.

Our next person to testify is Mr. Robert Petrancosta.

Mr. PETRANCOSTA. Acting Chair, Mr. Hare, Ranking Member, Mr. Shuster, and Members of the Subcommittee, thank you for the opportunity to testify on the reauthorization of the Hazardous Materials Safety Program. My name is Robert Petrancosta, and I am the Vice President of Safety for Con-way Freight, a trucking company with more than 8,500 trucks and 17,000 employees. We transport over 56,000 shipments each day, and approximately 2,000 of these shipments are regulated HAZMAT.

Today I appear before you representing the American Trucking Association. The trucking industry delivers virtually all the consumer goods in the U.S. and transports 94 percent the HAZMATs that are essential to our quality of life.

The safety and security record for HAZMAT transportation by truck is impressive. In fact, the odds of being struck by lightning are much greater than the odds of being injured by a truck transporting HAZMAT. While the existing regulations governing HAZMAT transportation have a proven track record, I would like to highlight three specific recommendations to further improve safe, secure, and efficient transportation.

The first recommendation, address OSHA's overlap in jurisdiction. ATA supports eliminating OSHA's overlap in jurisdiction with respect to the transportation of hazardous materials. This overlap in jurisdiction erodes the regulatory uniformity necessary for safe and efficient transportation of HAZMAT. Unlike the Department of Transportation, OSHA does not have the authority to ensure uniform regulations. States are free to enact more stringent worker protections than those established by OSHA.

This type of regulatory framework may work well for employees at fixed facilities, but is problematic for transportation companies whose employees work in multiple States.

ATA and Con-way are concerned about employee safety, and support a compromised solution to ensure uniform regulations while preserving OSHA's role in addressing potential unsafe conditions for employees.

To implement the solution, Congress should, one, eliminate the overlap in jurisdiction; two, require the Secretary of Labor to iden-

tify any gaps in the HAZMAT regulations that create an unsafe condition for employees; and, three, require the Secretary of Transportation to address these unsafe conditions.

Our second recommendation, enact a uniform permitting program. Currently, individual States have imposed more than 40 separate HAZMAT permitting programs. Compliance with these separate programs is an enormous administrative burden. ATA supports the implementation of the uniform program currently administered by seven States. The uniform program is a base State program that ensures participating States will continue to receive the revenue that they have come to rely upon under their individual permitting programs.

The implementation of the uniform program would reduce State expenses, as the administrative functions would be shared by all participating States. It would also reduce the administrative burden on the regulated industries.

The third recommendation, ensure equitable enforcement of the hazardous materials regulations. Today the HAZMAT regulations consist of more than 500 pages of complex regulatory text. Our company, Con-way, has a comprehensive driver training program. We spend more than \$700,000 training our HAZMAT employees annually to operate in compliance with the rules.

However, we will never be able to train our drivers to catch every mistake made by our customers. Primary compliance with the hazardous material regulations rest with the shipper, who must properly classify material, select an appropriate packaging, mark and label the package, and prepare a compliant HAZMAT shipping paper. Each of these pre-transportation activities occurs before the carrier arrives to load HAZMAT packages on the truck.

Since most HAZMAT enforcement occurs during roadside inspections, the responsible party may not be present. It is not fair to fine a carrier for transporting HAZMAT where a shipper neither labels the package nor presents a HAZMAT shipping paper to the carrier prior to transportation. A driver cannot be expected to catch shippers that intentionally hide the transportation of HAZMAT.

Likewise, where a shipper omits certain required information on a shipping paper, it is not realistic to expect the truck driver to research the chemical and catch the shipper's mistake at the dock. Carriers must remain responsible for the correct performance of the HAZMAT function under their control, but they cannot be expected to correct shippers' mistakes in the performance of pre-transportation functions.

Congress should ensure that carriers are not held responsible for violations of pre-transportation functions that are performed by a shipper unless the carrier has actual knowledge of the violation.

Thank you for allowing me to testify. I would be pleased to answer any questions you and the other Members of the Subcommittee may have.

Mr. HARE. Thank you very much. Our next person to testify is Mr. Byrd.

Mr. BYRD. Thank you. Good afternoon. My name is Lamont Byrd, and I am Director of Safety and Health at the International Brotherhood of Teamsters. I would like to thank Chairwoman Brown and Ranking Member Shuster for the opportunity to comment here

today on the reauthorization of the DOT's HAZMAT Safety Program.

The Teamsters Union represents approximately 300,000 workers in the United States who handle and transport HAZMAT. Today I will briefly comment on training for HAZMAT workers, OSHA jurisdiction, and the HAZMAT endorsement in criminal background checks.

It is critical that HAZMAT workers be provided with comprehensive worker safety and security training to enable these workers to protect themselves from the hazards that are inherent in handling and transporting HAZMAT. The Teamsters Union provides HAZMAT training to our members and other workers through a program that is funded by grants from the DOT Pipeline and HAZMAT Safety Administration, the National Institute of Environmental Health Sciences, and through collective bargaining with our employers. The DOT grant is funded at \$1.6 million for 1 year to conduct the HAZMAT instructor training program.

To successfully complete our program, students must create a prerequisite 8-hour HAZMAT course, a 40-hour Train the Trainer course, and teach at least one 8-hour HAZMAT course while being monitored and evaluated by program staff. We will train at least 345 instructors and 814 rank and file HAZMAT employees by the end of the grant year.

We have received very positive feedback from our students who participated in the program and from employers who audited the course. We strongly recommend that the program be continued and that it be expanded to allow more training of rank and file HAZMAT workers.

With respect to OSHA jurisdiction, the union is aware of previous and current industry efforts to eliminate OSHA's authority to protect HAZMAT transportation workers. This is an extremely important issue to the union, and we recommend that any attempts to eliminate or weaken OSHA's authority be rejected. The union has had several experiences working with OSHA on HAZMAT transportation-related issues, and we feel like the agency has appropriately addressed the issues. Hazards were abated, and employees were protected. We would like for this to continue.

Since the implementation of the requirements of the PATRIOT Act, all Teamster members who drive in the LTL sector of the trucking industry must have the HAZMAT endorsement on their CDL. Although most of our members have not reported any problems with obtaining their HAZMAT endorsement or getting through the background check process, we remain concerned about the disqualifying offenses being better defined to include only those that have a consistent and direct link to national security. We recommend the appointment of a task force to review the list of disqualifying crimes to determine if they are accurate indicators of a terrorism security risk.

Every effort should be made to eliminate duplicative background checks. There are cases where port drivers must obtain up to five separate security cards, plus the TWIC, to access individual ports. These cards cost the drivers hundreds of dollars that they cannot afford. And in the ports, until a sufficient number of card readers

are in place, the TWIC is no better than a CDL in establishing identity or enhancing security.

Then there is a the issue of the CDL equivalency. The U.S. and Mexico signed an MOU in the early 1990s recognizing the Mexican truck driver's license as equivalent to the U.S. CDL. However, the Motor Carrier Safety Improvement Act of 1999 changed the CDL program, making serious violations occurring in a driver's personal vehicle, including DUIs, count against the CDL record. There is no similar treatment of Mexican truck drivers. In addition, we still don't know what the medical fitness standards are with respect to Mexican truck drivers.

Then finally, with respect to criminal history, drivers in Mexico would undergo checks of their criminal history while in the United States but not checks of their criminal history in Mexico. It in no way can be construed as undergoing similar background checks as required by statute. Until the Mexican Government can ensure that it has documented that its drivers have not committed offenses in Mexico that would disqualify them from hauling HAZMAT in the U.S. those loads should be handed off to U.S. drivers who meet the background check requirements.

We commend the Committee's concerns about the safety and security of the public and HAZMAT workers. Enhancing the Federal HAZMAT laws and reauthorizing the DOT's HAZMAT Safety Program are important steps that this Congress can take, and we look forward to working with you.

I am happy to answer any questions that you may have.

Mr. HARE. Thank you, Mr. Byrd. Dr. Donaldson, welcome to the Committee, and we look forward to your testimony.

Mr. DONALDSON. Good afternoon. My name is Gerald Donaldson. I am the Senior Research Director of Advocates for Highway and Auto Safety. Advocates is grateful for the opportunity to assist the Subcommittee today in its inquiry into the safety and security of hazardous materials transported throughout the U.S. by highway as you consider reauthorization of the U.S. Department of Transportation's HAZMAT safety programs.

U.S. HAZMAT highway transportation is not appropriately safe and secure. Although Congress wisely anticipated the need for more stringent regulation of HAZMAT carried by motor vehicle, statutory requirements and Congressional intent have not been fulfilled. When Congress reauthorized HAZMAT transportation safety legislation in 1990, the bill directed agencies of jurisdiction to tighten permitting practices, achieve uniformity between interstate and intrastate HAZMAT transportation, and improve the oversight and enforcement of HAZMAT transported by motor vehicle. However, the agencies primarily responsible for setting standards for HAZMAT transportation safety and security, FMCSA and PHMSA, have not created and implemented sufficiently tight systems of HAZMAT safety and security that fully comply with Congressional direction.

Instead, the agencies have chosen mostly a "business as usual" approach to key HAZMAT regulations over the past several years. Pivotal important regulations controlling the issuance of Federal permits and the creation and implementation of HAZMAT security plans for highway transportation of certain dangerous HAZMAT

have been adopted that are too weak and not comprehensive. The warning lodged by the Government Accountability Office in a major 2003 report on national transportation security stressed the need for a coordinated and comprehensive approach to the laws, regulations, oversight and enforcement practices that should reduce the high vulnerability of surface transportation through disruption and interdiction for illicit uses. However, that timely warning of GAO has gone largely unheeded.

To respond to these overdue needs to tighten HAZMAT law and regulation, Advocates recommends major changes in national highway HAZMAT transportation policies that we ask Congress to consider. These include:

Mandating electronic onboard recorders and event data recorders on all HAZMAT motor carriers, particularly transporting HAZMAT subject to security plans and the 23 United States Code section 5109 safety permits. This will improve real time oversight of the commercial driver and that driver's hours of service, where the HAZMAT vehicle is at any given time, and provide crucial data about vehicle dynamics prior to a crash or HAZMAT incident.

Requiring untethered HAZMAT tracking technologies, requiring specific security plan criteria to be adopted and implemented by PHMSA, and carrier submitted security plans to be reviewed, approved and stored by PHMSA for oversight purposes.

Requiring expansion of the types and quantities of material subject to the HAZMAT regulations for security plans, and Section 5109 safety permits.

Directing PHMSA and FHWA and FMCSA to lower the quantities of all types of HAZMAT currently permitted to be transported without placarding.

Directing PHMSA and FMCSA to conform intrastate transportation of HAZMAT for the Federal laws and regulations governing HAZMAT transportation, including special permit HAZMAT.

Eliminating special exemptions that can be used to threaten the safety and security to U.S. people and their institutions.

Requiring appropriately adapted commercial motor vehicle safety alliance Level 6 pre-trip inspections of all motor vehicles transporting Section 5109 special safety permit and PHMSA security plan HAZMAT both in intrastate and interstate commerce.

These are the bare minimum to ensure the improved safety of the U.S. people and their institutions to reduce the chances that unscrupulous individuals and organizations will not use dangerous lethal materials against us.

Advocates deeply appreciates the invitation to testify, and we are ready to respond to any question you may have and provide any additional information. Thank you.

Mr. HARE. Doctor, thank you very much. Ms. Hilton, you are recognized for your testimony. Welcome.

Ms. HILTON. Acting Chairman Hare, is that right, and Ranking Member Shuster, I appreciate the opportunity to appear today. I am Cynthia Hilton, Executive Vice President of the Institute of Makers of Explosives and a Co-Facilitator of the Interested Parties for Hazardous Materials Transportation, a coalition of HAZMAT-related associations. I have been asked to present a shipper's view on HMTA reauthorization.

The shipper community is extremely diverse, from the products we produce, to the markets and customers we serve, to the size and reach of individual companies. Our society benefits from hazardous materials which make our lives better, healthier, and more productive. Shippers provide jobs and contribute positively to the U.S. balance of trade.

The purpose of the HMTA is to protect against harm when HAZMAT is transported. These materials may not be transported by any mode without specific DOT authorization. This requires a close relationship with the regulated community. The relationship is based on Congress's statement that HAZMAT transportation is necessary to maintain economic vitality, meet consumer demands and be conducted in a safe, secure, and efficient manner. Thus, the HMTA exists to facilitate, not frustrate this commerce by balancing these objectives.

The success of this approach is seen in the relatively low number of HAZMAT incidents, despite billions of tons transported each year. Yet some find any incident unacceptable. While we learn from incidents and strive to be more vigilant, the goal of the HMTA is not zero risk, but to manage risk. This risk-based approach relies on performance standards which can accommodate the innumerable variations in HAZMAT shipments.

Under its statutory authority, PHMSA considers the amount and form of a material that may pose unreasonable risk to health safety and property. Additionally, HAZMAT is transported by all modes, and any one shipment will often travel by multiple modes. Intermodal transportation demands a "One DOT" approach. If HAZMAT regulation is not modally harmonized, risk may simply shift from mode to mode.

Finally, the HMTA provides authority to manage risk by ensuring that HAZMAT shipments are not frustrated at jurisdictional boundaries. Again, the best way to share the risks and benefits of HAZMAT transportation is to ensure that the rules are harmonized nationally and worldwide.

The interested parties have suggestions to improve the HMTA which I will submit for the record. Now let me address those of most interests to shippers.

HAZMAT transportation requires uniform Federal regulation to protect the public, facilitate compliance, and provide for efficient movement of these materials, and these important purposes should be stated in Section 5125.

Congress should continue to strengthen DOT's ability to ensure uniform HAZMAT rules by allowing DOT to use an internal consistency test when evaluating applications for preemption determinations, a standard DOT already uses when it considers preemption waivers.

The system of close regulation envisioned by the HMTA must be comprehensive. Regulatory gaps introduce undue risk and overlaps impose unnecessary burdens. We recommend closing a gap by adding loading, unloading, and storage incident to movement to DOT's regulatory authority.

Also, Congress should require rulemaking to address the consequences that can result from human error and equipment failures when noncarrier personnel load, unload, or store bulk pack-

ages. The NTSB, as you heard earlier, and the Chemical Safety Board have recommended enhanced DOT safety standards in these areas.

In 1990, OSHA found itself with authority over HAZMAT transportation which is duplicative of DOT's. Regrettably, OSHA's HAZMAT rules are out of date. If enforced, they would put workers and the public in harm's way. In contrast, DOT consistently refreshes HAZMAT rules to cover new products and evolving international requirements.

The HMTA provides DOT with new authority to search, open, and remove HAZMAT packages from transportation. This authority should be implemented only under the following three conditions:

- It should be limited to packages believed to contain undeclared HAZMAT as Congress intended.

- DOT should indemnify and hold harmless those who are injured when these packages are opened or handled or whose packages are damaged or destroyed but found to be in regulatory compliance.

- Congress should ensure that these rules address delay of time-sensitive materials, training and equipment for inspectors, and restoration or disposal of open packages.

- The safety of the public, those engaged in HAZMAT transportation, and enforcement officials depend on these protections.

Finally, Congress should reaffirm its longstanding commitment to the intermodal and international role FMCSA carries out to ensure the safe, secure, and efficient transportation of HAZMAT at home and abroad.

In conclusion, shippers support the closely regulated environment envisioned under the HMTA because it is proven to be the most efficient way to move HAZMAT safely and securely.

I would be happy to answer any questions. Thank you.

Mr. HARE. Thank you, Ms. Hilton. I know you have been here a long time, so I am going to kind of keep my questions short.

Ms. Harman, if I heard you correctly you said that only 29 percent of firefighters are trained.

Ms. HARMAN. Correct. If you review the National Fire Protection Association's needs, the second needs assessment that they have done in the Fire Service, those are statistics that are pulled directly from that report.

Mr. HARE. So you suggested that the 28 million that was provided through the hazardous materials emergency preparedness programs grants for the States and local governments was insufficient to meet the training needs. What would be sufficient? What level of funding would make this, you know, more sufficient for you?

Ms. HARMAN. I don't know if I am in the correct place to give you an exact dollar figure, and I don't think I can speak on behalf of State and localities. I can speak on behalf of the IAFF training programs, of which we have an enormous request and demand for, particularly when we had more responders out there prior to this economic crisis that we are in. The problem that we are in now is that we have firefighters and other first responders in need of training.

Unfortunately, the first budget line to get cut is traditionally training. So we have firefighters out there who may or may not

have been trained at the operations level early on, and will most likely not get the refresher training that they need because we are right now unable to meet the demand of either fulfilling the training requests or providing any backfill or overtime monies that they may need.

Mr. HARE. Thank you. Mr. Byrd, just a couple of questions for you.

As I understand it, the Teamsters International was awarded a \$1.6 million grant from FMCSA to train hazardous materials employees. Can you describe how the Teamsters utilized that grant?

Mr. BYRD. Yes. The grant is actually HAZMAT Instructor Training Program. We use this funding to recruit potential candidates to participate in our training program. We also use the funding to provide comprehensive training to the individuals that participate, and this training could involve have an 8-hour prerequisite HAZMAT course. There is a 40-hour Train the Trainer, and then, as part of the Train the Trainer Program, there is a practical component where the new instructor, after going through the Train the Trainer, then has to conduct an 8-hour training course, a HAZMAT training course, while being evaluated by one of our program staff.

We also use the funding to do evaluation of the performance of our master trainers and the instructors that, new instructors that have come through our program.

Mr. HARE. What is the difference between the type of training that you provide and the type of training that employers typically provide?

Mr. BYRD. Well, as we have talked with our HAZMAT employee members, they have indicated that the training that they receive from employers typically is along the lines of receiving handout materials that they can review on their own or watching a short video with very minimal, if any, opportunity for question and answers. The training that we provide is not the awareness level training that the employers provide. It is a more intense, 50, totaling 56 hours of training that provides the trainees with a greater, much greater depth of knowledge with respect to HAZMAT issues.

Mr. HARE. And my last question to you, Mr. Byrd, and I will try to keep it short. The Teamsters have registered their strong support for OSHA to have authority over working conditions for workers who load, unload, and handle hazardous materials. If the authority of OSHA to protect these workers was eliminated, in your opinion, what would be the repercussions to the workers and to the public?

Mr. BYRD. Well, I think we would see a decline in the health and safety of the HAZMAT employees. You know, one reason, if that authority was eliminated, you know, although the DOT may have some type of safety regulations, the preemption requirement or the preemption language under the act does not require that the training or the programs or the rules be equivalent, just that they exist. So we would think that there would be a diminishing of safety and health.

Then there are the other issues that are associated. Should a HAZMAT incident occur, the OSHA rules clearly explain what actions, or require that a process be developed that dictate the actions that workers have to take. If there were injuries, then there

are reporting requirements. If injuries occur or if exposures occur, then there are access-to-information requirements that apply. We don't see those same type of requirements under the DOT regulatory regime.

Mr. HARE. Thank you, Mr. Byrd.

Mr. Shuster.

Mr. SHUSTER. Thank you very much. Mr. Rogers, your testimony today talked about doing an outright ban of lithium batteries. Is there anything short of an outright, I mean, you didn't say, I mean I can carry this on, I can wear my watch on the plane, but I mean the bulk shipments I guess is more accurate of what you had said. Is there anything we can do short of an outright ban to be able to make it safe, in your mind, to be able to ship batteries?

Mr. ROGERS. Well, yes, and to clarify, what I am talking about are lithium metal batteries which are not what you see in your cell phone or your laptop computer. These are the nonrechargeable small batteries that have been shown to be completely unresponsive to halon, and they are currently banned on passenger aircraft right now. So we are asking that that be extended to cargo aircraft until adequate packaging standards are developed. That adequate packaging may include—

Mr. SHUSTER. The kind in my watch, it is not rechargeable.

Mr. ROGERS. Right, but bigger ones. And you can get them bigger sizes and so forth. And we are not asking for a ban on batteries in equipment. So if you were to ship the watch or anything, a flashlight or a camera that had the battery, that would also not be affected. We are looking for large quantities of these batteries being shipped together not being put on cargo aircraft, like they are not put on passenger aircraft today, until the packaging is appropriate. And that may include metal packaging. It may include something else. But testing needs to be done to make sure that the safety of the aircraft and its occupants is protected.

Mr. SHUSTER. Right. And I guess, and I have no idea and I don't know if you do, what the impact or the repercussions would be to commerce if you stopped those types of shipments. I don't know how big it is or how small it is, the impact on commerce.

Mr. ROGERS. Less than 2 percent of dangerous goods transported is by air, and most of these batteries aren't going on aircraft as it is already. So I can't speak to the industry's exact input. I don't work for the industry. However, you know, we look at a very small percentage that actually goes by air because it is very expensive to ship these by air. And we feel that the safety implications of preventing an uncontrollable fire on the aircraft is sufficient justification for that move.

Mr. SHUSTER. Thank you very much.

Mr. Byrd, in your testimony you talked about duplication of background checks. I think one thing when we were having a national transportation system trying to streamline things, I think reducing duplication and extra work on things like this makes a lot of sense. But are you, in the background check, would you eliminate the hazardous materials endorsement on a CDL driver's license?

Mr. BYRD. No, I wouldn't. Our concern, examples that we have gotten from drivers that we have talked to is that, you know, if

they—for example, port drivers—if they have to service or deliver to multiple ports, many of these ports have their own security clearance card and they have to buy those cards or they have to pay for the background check to get that card in addition to getting the TWIC. That is our real concern, not the background check, as it relates to the HAZMAT endorsement.

Mr. SHUSTER. Would the Teamsters endorse the idea of a Transportation Worker's Identification Card that would cover all transportation workers? Is that something that you would support?

Mr. BYRD. Well, we haven't—I haven't been involved in any very detailed, you know, discussions about that particular issue, but I think it would certainly be an issue we could seriously entertain.

Mr. SHUSTER. Okay. Thank you very much.

Mr. Petrancosta, your testimony indicated that truck drivers receiving tickets and violations, and I think we heard it somewhere else today from somebody, that the companies that are, the transport companies are the ones that are getting the fines and of course it is probably impacting your insurance rates and things like that when you get those kinds of fines. And how common is this problem throughout the industry?

Mr. PETRANCOSTA. Mr. Shuster, ATA developed a report that indicates that at least 13 percent and maybe as much as 45 percent of all fines issued to motor carriers would result from noncompliant activities performed by the shipper.

I would be more than happy, Madam Chair, to submit as a record the report.

Mr. HARE. Without objection.

Mr. SHUSTER. Hazardous materials are transported by all the modes. Is it your belief that to have the Department of Transportation have one approach to regulate HAZMAT, is that something you believe is an appropriate model?

Mr. PETRANCOSTA. Well, it is particularly unfair for drivers to be fined for conditions that are beyond their control. It affects not only their safety record, but obviously it can also cost them some money. And it is equally unfair for citing the driver or the carrier because it doesn't really address the issue. The responsible party is not held accountable in this case. And so what we recommend is that there needs to be a requirement for States to furnish data to the Pipeline Hazardous Materials Safety Administration and FMCSA so that the Federal Government may pursue noncompliant shippers that are located out of State.

Mr. SHUSTER. Thank you for that answer. I want to thank all of you for being here today. And I just want to reiterate, I see my time has expired but I want to reiterate that the transportation of hazardous materials has had a remarkably safe record, and I want to make sure as we move forward in this reauthorization we don't create a lot of problems. I certainly want to try to find some solutions to these situations that are occurring, but I want to make sure that we continue in a positive way, encouraging the safety record to get even better, but not to say things and put laws in place that I think would have a detrimental effect on the commerce and on the economy of this country.

So again, thank you all for your time here today, and I yield back.

Mr. HARE. I am pleased to recognize the Chair of the Subcommittee, Ms. Brown.

Ms. BROWN OF FLORIDA. Thank you. And thank you, Mr. Shuster. I know that you will make sure that we have balance on this Committee.

I have a couple of questions. Ms. Harman, you mentioned that the firefighters receive an annual grant to train instructors to deliver hazardous training to emergency responders nationwide. Can you describe in more detail how you administer this grant? And you have asked the Committee to consider a proposal to allow you to use this grant to train rank and file firefighters, not just instructors. How would this help get more firefighters trained, given, you know, we have some limited budget?

Ms. HARMAN. Thank you, and that is an excellent question. The IFF HAZMAT and WMD Training Department has been federally funded for the past 22 years from a variety of Federal sources, including Department of Transportation, and we were fortunate to work closely with DOT about a year and a half ago to increase funding that would strengthen our existing Train the Trainer Program. We moved from a training program of \$250,000 a year that trained solely, you know, instructors, delivered Train the Trainers. That money did not afford us an opportunity to go back and provide additional support for those instructors. Some of the instructors never reported back to us as far as what they were doing. Sometimes there is not a whole lot of incentive for them to report back to us. They sort of get the information and go.

So with the increase that we were able to receive, so far we have been able to expand the program not only in the delivery of the number of Train the Trainers, but also we have been able to provide supportive training sessions for them and go out and co-teach with them twice. Unfortunately, as I mentioned earlier, with the state of the economics or economy the way it is right now, we don't have anybody knocking on the door for I want to be an instructor. They need that direct training. We want to be very careful that when we are delivering training, particularly in some rural areas that lack the outside experiences from those in larger metropolitan areas, that we don't go in and deliver a Train the Trainer Program and say, here you go, out the door, and they are left with great training materials but a lot of self-interpretation through that delivery and possibly lack of experience handling hazardous materials in those smaller areas.

So for us, the demand for direct training, direct delivery, where I can provide an instructor, a certified instructor, who is also a hazardous materials responder who is very passionate about what they do, who has a focus on health and safety, we train responders on the equipment that they are expected to use in the field. We do not provide equipment. Sometimes that is all the bells and whistles, great equipment; sometimes it is not so much. And in those cases we focus on what their limitations are and how they can leverage that to their advantage in the field.

So the opportunity to deliver direct training, provide someone from a large metropolitan area, again, very passionate about safety, very passionate about teaching instructors, very passionate about teaching other firefighters, whether they are career or volun-

teer in large or small areas, the experience they bring into that classroom is very invaluable. We have shown to have a cost effective training program through both internal and external audits, and I just think it is a greater bang for the buck to do direct delivery from the student's perspective.

Ms. BROWN OF FLORIDA. Okay. Thank you. Mr. Byrd, and I think I want Mr. Petrancosta and Ms. Hilton to respond to this question also. Since 9/11 it has been a major as far as the TWIC card and the problems that we have experienced. We had a hearing in Homeland Security because we have had some truck drivers who have maybe been driving for 20 years and they were denied, you know, their cards. And given that we are in a different kind of climate, can you explain how we could improve the program but still have the security there?

You know, in Florida, we have 14 ports, and I think you have to have a different card for each port.

Mr. BYRD. Well, I would think that a first step would be to have a uniform card and uniform card reader at each of these facilities. I think that that—

Ms. BROWN OF FLORIDA. It is a different fee you know every time you get the card.

Mr. BYRD. I understand. And that has been one of the complaints that the drivers we have talked with have. But we think that the ports could then have a uniform system also, that the card reader, if the card reader were there, then the TWIC should suffice in terms of providing the necessary security measures. I would think that that would be one important step there.

Mr. PETRANCOSTA. ATA really continues to lobby Congress to enact meaningful reforms, such as Representative Lungren's Safe Trucker Act, which would require DHS to identify a list of security sensitive materials, to require drivers to possess one card, a TWIC card. And the drivers transporting hazardous materials that did not possess or pose a significant security risk would undergo a less costly and burdensome name-based check to renew their hazardous material endorsement.

Ms. BROWN OF FLORIDA. Okay. Ms. Hilton.

Ms. HILTON. This is one of the most important areas of reform that Congress should look at. It is ridiculous that this one department has upwards of, seven or so, and more on the horizon, background checks which are all, as Mr. Byrd noted, based on the same disqualifications. So there is no value added to security by requiring people to get these divergent cards.

I suppose I can't blame it on DHS, since Congress, in your wisdom, has asked the Department to undertake these different card check programs. But among the many things to improve the current situation would be: To create a list of security sensitive materials. The current list of materials that triggers a background check is much broader than it needs to be now. To re-look at the disqualifications, to ask whether or not it is really focused on terrorists or just, I call it, the walk-on-water test.

There is legislation, as you pointed out, which is moving that will remove one of those many credentials from the table and substitute it for a TWIC card. However, there are still a number of other cards that are out there, and because the disqualifications - the

core disqualifications - are the same across the board, what is wrong with some reciprocal recognition between the cards, especially in the absence of a card reader?

So there are many, many reforms that could happen to put more sense into security credentialing programs and practices. The interested parties' recommendations talk about a number of these.

Thank you.

Ms. BROWN OF FLORIDA. Thank you. Chief Johnson, in your testimony, you recommended that the first responders be trained at the OSHA, the National Fire Protection Association operation level standards. Please elaborate on how receiving operational level training versus awareness level training would better prepare first responders for the multitude of hazardous incidents.

Chief JOHNSON. Thank you, Madam Chairman. The awareness level is intended for people that come across an incident and then know what to do with it. And the operations level is how you keep that in check while you wait for technicians to arrive. And the more people that are first responders that are trained to the operations level, the more likely you will make good decisions about when to evacuate, how far to evacuate and what proper actions you take as you await people that will actually mitigate the event. It actually enhances the efficacy of a hazardous materials event to make some of those good decisions early so that you don't under manage it and don't over manage it, because there is true cost and true disruption that goes along with the decision on either side of that.

Thank you.

Ms. BROWN OF FLORIDA. One of the things in a hearing that I had in the field, one of the problems, and we went to an area where an incident had taken place. And it is not a lot of communication between the hazardous material that is going through the community, and let's say the firefighters. How can we better develop that communication system?

Chief JOHNSON. Excellent question, Madam Chairman. It is really kind of a paradox of having too much information that flows to the HAZMAT team about every shipment that is something that is broadly classified as a hazardous material, and what products that are there that you need to know about that is a meaningful exception, and that may alter your response.

I can't craft that line for you today. I would say, however, that as the discussion goes on about maybe an electronic solution to that, that my urging would be that we are careful about implementing an electronic solution to that because this Nation does not have a nationwide plan for an interoperable communication system for public safety responders. We don't have that today. And because we don't have that, we don't have a reliable platform within which this kind of information could be transported.

So that would leave us with broadband data system and cellular networks today. Those are largely unpredictable and unreliable to the extent public safety would require, and there is a lot of America that doesn't have a robust broadband system or even cellular networks. So I would just urge our care as we move forward with that.

Ms. BROWN OF FLORIDA. I do think that one of the major problems that we are having is with the communications because when we had Katrina, you know, the people could not communicate outside the area. So that is a major problem. 9/11, when the firefighters were going into the building, we couldn't communicate.

I went to Normandy. One of the problems where so many people got killed was that they couldn't communicate with the people that was coming in. So communication is something I think we need to move forward in helping to develop the kind of communication system so that we can communicate during these times.

Chief JOHNSON. Madam Chairman, excellent observation. To reflect on Normandy for a minute, when General Eisenhower returned from World War II and became President of the United States, he noted that one thing that Germany had done well was to build a national transportation system. That led to the Eisenhower Freeway Transportation System in this country.

What we haven't done in the United States is to take the bold step of articulating an Eisenhower-like plan for our public safety communication system. If you build, if you lay forth a model that says this is what our wireless interstate will look like, then cities, counties, and districts can build to that system with their own system, and the Federal Government can inventory our system and use that to create a national system. In my opinion, that is primary to any communication system that responders can rely on.

Ms. BROWN OF FLORIDA. You are so correct, Chief Johnson.

Chief JOHNSON. Thank you.

Ms. BROWN OF FLORIDA. And to mention the Eisenhower 50 years ago, I just returned from Europe, and we are the caboose now. And they don't even use them because he came and we developed this great highway system, but we didn't put the other systems in place, and you are right that we need to think in our Committee on Transportation and Infrastructure how we can move forward with the communications. Because after the hearing in Katrina, when we had hearings from Members and others that came in, the major flaw was communications.

Chief JOHNSON. Yes, Madam Chairman. You couldn't be more correct. It will continue to be one of the top three things in every major event gone wrong. You can take that to the bank. I have spent 31 years watching it be one of the top three in every one for 31 years, and until we fix it, it is likely to remain there.

Ms. BROWN OF FLORIDA. I yield back the balance of my time.

Mr. HARE. Thank you, Madam Chairman. Thank you for giving me the opportunity to sit in the Chair. I hope I didn't mess you up too bad. I want to thank all the witnesses for their testimony and for the Members that were here today and had questions.

Again, the Members of this Subcommittee may have additional questions for the witnesses, and we will ask you to respond to those in writing if you would be so kind. The hearing record will be held open for 14 days for Members wishing to make additional statements or to ask further questions.

Unless there is further business, the Subcommittee is adjourned. Thank you again.

[Whereupon, at 6:40 p.m., the Subcommittee was adjourned.]

STATEMENT OF  
THE HONORABLE JERRY F. COSTELLO  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS  
HEARING ON  
“REAUTHORIZATION OF THE DEPARTMENT OF TRANSPORTATION’S HAZARDOUS MATERIALS  
SAFETY PROGRAM”  
MAY 14, 2009

- Thank you Madam Chair. I am pleased to be here today to discuss reauthorization of the Department of Transportation’s Hazardous Materials Safety Program. As the Chairman of the Subcommittee on Aviation, I look forward to hearing from our panel of witnesses on the dangers associated with the transportation of lithium batteries by air.
  
- Lithium batteries can pose a danger in air transportation. The technology is inherently complex and has several known risks. For example, lithium batteries can provide extremely high currents and can discharge very rapidly when short-circuited, and result in overheating of the battery. Once that occurs, it

takes less than a second for a chemical reaction to cause a substantial fire that burns at high heat, which is extremely difficult to extinguish. Even Halon fire extinguishers – the only fire extinguishers certified for aviation – have not proven effective in extinguishing many lithium battery fires.

- Since 1996, the Pipeline and Hazardous Materials Safety Administration (PHMSA), the Federal Aviation Administration (FAA), and the National Transportation Safety Board (NTSB) have identified 98 incidents involving lithium and other batteries.
  
- For example: On April 28, 1999, a fire erupted on two aircraft cargo pallets being off-loaded from a Northwest Airlines flight at Los Angeles International Airport. The two pallets involved in the fire contained 120,000 small primary lithium batteries that

were exempted by PHMSA from domestic and international hazardous materials safety regulations applicable to hazard communication, such as marking, labeling, and shipping papers and packaging.

- That accident prompted the NTSB to warn government regulators and the public that lithium batteries presented an unacceptable risk to aircraft and passengers that required immediate attention. Fortunately, since that time, transporting lithium metal batteries onboard passenger aircraft has been prohibited, but lithium ion batteries can still be transported onboard passenger aircraft and both types of lithium batteries can be transported onboard cargo aircraft.
  
- On February 7, 2006, a United Parcel Service flight landed at Philadelphia International Airport after a fire erupted in three

cargo containers. The captain, first officer, and flight engineer evacuated the airplane and sustained only minor injuries. The airplane and most of the cargo were destroyed. Although the NTSB could not determine the precise cause of the fire, it believes that the fire began with lithium batteries as a number of secondary lithium batteries were found in the accident debris.

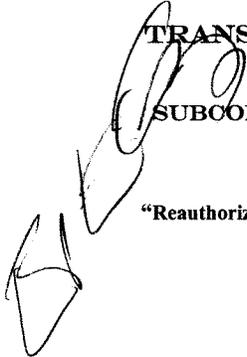
- The NTSB concluded that flight crews on cargo-only aircraft remain at risk from in-flight fires involving both primary and secondary lithium batteries. In fact, the NTSB has issued 15 recommendations addressing the safety of transporting lithium batteries onboard aircraft since 2000, only a few of which have been acted upon by PHMSA and the FAA.
  
- The FAA, however, does not have the authority under current law to regulate the transportation of hazardous materials by air.

A provision in current law specifically states that the FAA Administrator shall carry out the duties and powers of the Secretary of Transportation with respect to aviation safety, except those related to transportation, packaging, marking, or description of hazardous materials. That is the authority of PHMSA.

- Several months ago, the Committee began investigating what PHMSA had or had not done to implement the NTSB recommendations. It quickly became evident that PHMSA had not done enough.
  
- We expressed that concern to PHMSA, and we understand that prompted PHMSA and the FAA to come together on a plan to address our concerns in a new rulemaking, which will provide for better hazard communication, safer packaging, more testing,

and increased regulation of lithium and other batteries.

- I look forward to hearing more from PHMSA on this initiative, and more from the NTSB and the Air Line Pilots Association on their concerns with lithium batteries.
  
- Thank you, Madam Chair.



**TRANSPORTATION AND INFRASTRUCTURE  
COMMITTEE**

**SUBCOMMITTEE ON RAILROADS, PIPELINES, AND  
HAZARDOUS MATERIALS**

**“Reauthorization of the Department of Transportation’s Hazardous Materials  
Safety Program”**

**May 14, 2009 – 2:00PM**

**Room 2167 Rayburn House Office Building**

***Statement of Congressman Elijah E. Cummings***

Thank you, Madam Chair, for convening this hearing to enable us to examine the Department of Transportation’s hazardous materials programs in preparation for the reauthorization of these programs.

As we look toward that reauthorization, I would like to express my strong support for the creation of a permanent Hazardous Materials Cooperative Research Program under the purview of the Transportation Research Board (TRB).

TRB's Special Report 238, issued in 2005, highlighted the need for a cooperative research program for hazardous materials transportation.

The report found that while there are a number of agencies involved in the regulation of hazardous materials shipping, each agency often examines this transportation from its own isolated perspective.

This approach has left wide gaps in our oversight efforts – one of the most notable of which TRB identified as a lack of applied research on issues that are cross-cutting in nature.

Taking the findings of this report into account, I authored legislation in the 109<sup>th</sup> Congress to develop and administer a full-fledged cooperative research program on hazardous materials, similar to the research programs on transit and on highways.

With your support, this legislation was adopted as part of the Safe, Accountable, Flexible, Efficient, Transportation, Equity, Act: A Legacy for Users (SAFTEA-LU) bill.

Specifically, Section 7131 of SAFETEA-LU required the Administrator of the Pipeline and Hazardous Materials Safety Administration to enter into a contract with the National Academy of Sciences to carry out the nine research projects called for in the TRB report.

To support implementation of this provision, SAFETEA-LU made available \$1,250,000 for each of fiscal years 2006 through 2009.

I am pleased to report that the Hazardous Materials Cooperative Research Program has now been organized.

It is governed by a board comprised of experts from the public and private sectors, and it has sponsored 6 on-going studies that address issues ranging from root cause analysis of hazardous materials transportation incidents to emergency response needs and capabilities pertaining to hazardous materials releases.

I strongly urge the Transportation and Infrastructure Committee to build on the work of this cooperative research program by establishing a permanent cooperative research program to study the movement of hazardous materials.

I would also ask that the amount of funding allocated to this program be increased above the annual funding level made available by SAFETEA-LU.

It is extremely critical that we utilize every available tool to ensure the safety and security of the communities through which hazardous materials pass – and the creation of a permanent Hazardous Materials Cooperative Research Program will give us an invaluable forum through which applied research can be conducted on a multi-modal basis on the transportation of hazardous materials.

Thank you again for your leadership on this critical issue. I look forward to the testimony of today's witnesses and with that, I yield back.

STATEMENT OF  
THE HONORABLE JAMES L. OBERSTAR  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS  
HEARING ON  
"REAUTHORIZATION OF THE DEPARTMENT OF TRANSPORTATION'S HAZARDOUS  
MATERIALS SAFETY PROGRAM"  
MAY 14, 2009

I am pleased to be here today to discuss reauthorization of the Department of Transportation's Hazardous Materials Safety Program. The program was last reauthorized in SAFETEA-LU; it expired in September 2008. As we prepare for reauthorization in the upcoming surface transportation bill, it is critical that we examine implementation of the SAFETEA-LU requirements and identify any additional safety issues that may need to be addressed.

Two issues that are of particular concern to me are (1) the safety of transporting batteries, in particular lithium batteries, by air and (2) the current practice of transporting flammable material, such as fuel, in unprotected loading lines, known as wetlines, beneath cargo tank motor vehicles.

Before I get into those issues, however, there is one item that has come to my attention I want to highlight and that is the importance of ensuring the continued authority of the Occupational Safety and Health Administration (OSHA) to protect employees involved in the loading, unloading, and handling of hazardous material. Under current law, OSHA shares this authority with DOT. DOT regulates

transportation safety; OSHA regulates worker safety. That jurisdictional line was made clear in a Final Rule that DOT issued following enactment of SAFETEA-LU.

But it has come to my attention that some in industry have proposed eliminating OSHA's jurisdiction over hazmat employees under the guise that DOT and OSHA have conflicting or overlapping regulations. The Committee has closely examined this issue, going as far back as 1990 when OSHA was first provided this authority. They have spoken with both DOT and OSHA, and have found no evidence as to why the existing jurisdictional structure poses any problem to the industry but for the simple fact that they would like to avoid OSHA regulations altogether.

That's not going to happen as long as I'm Chairman of this Committee. This Committee has a responsibility to ensure that every aspect of the transportation of hazardous materials is safe, and that includes the safety of hazmat employees. If there is a concern that DOT isn't regulating enough in the area of loading and unloading

operations, as the National Transportation Safety Board (NTSB) suggests in its written testimony, then we can address that, but not at the expense of important OSHA protections.

With respect to lithium batteries, according to the Pipeline and Hazardous Materials Safety Administration (PHMSA), more than 3.3 billion lithium cells and batteries were transported worldwide in 2008, representing an 83% increase since 2005. Those numbers will only increase in the coming years as our reliance on technologies that utilize lithium batteries – from electric cars and digital cameras to cell phones and blackberries – grows.

Lithium battery technology is inherently complex and has several known risks, and when they are transported by air, they become high consequence risks. Lithium batteries can provide extremely high currents and can discharge very rapidly when short-circuited, and in turn result in overheating of the battery, rupture, and even explosion. Since 1996, the Federal Aviation Administration (FAA) and the NTSB have identified 98 incidents involving lithium and other batteries onboard aircraft.

These incidents prompted the NTSB in 1999 to warn government regulators and the public that lithium batteries presented an unacceptable risk to aircraft and passengers that required immediate attention. The transportation of lithium metal batteries onboard passenger aircraft has since been prohibited, but lithium ion batteries can still be transported onboard passenger aircraft, and both types of batteries can be transported onboard cargo aircraft. As the NTSB has pointed out, Halon extinguishers (the only fire suppression systems certified for aviation) are not effective in extinguishing fires involving lithium metal batteries, and there is some debate between PHMSA and FAA on whether they are effective for extinguishing fires involving lithium ion batteries.

Since 1999, the NTSB has issued 15 separate safety recommendations to PHMSA and FAA regarding the transportation of lithium batteries by air. Under current law, however, the FAA does not have the authority to regulate the

transportation of hazardous materials, including lithium batteries. That is the responsibility of PHMSA.

Some months ago, the Committee began reviewing what PHMSA had or had not accomplished to address the NTSB's recommendations. Unfortunately, it quickly became evident that PHMSA had done very little to address the NTSB's concerns. But over the course of our review, PHMSA and FAA have come together to develop a plan to address our concerns in a new rulemaking, which will provide for better hazard communication, safer packaging, more testing, and increased regulation of lithium and other batteries. I look forward to hearing more from PHMSA on this initiative.

The Committee is also concerned about PHMSA's failure to prohibit the transportation of 30-50 gallons of flammable materials, such as fuel, in unprotected loading lines, also known as wetlines, beneath cargo tank trucks. Under current law, carriers are prohibited from transporting some hazardous materials in these loading

lines, such as toxic materials and organic peroxides, but DOT has made an exception for fuel and certain corrosives.

Following an accident in Yonkers, New York, and another in Wilmington, Delaware, in the late 1990s the NTSB recommended that PHMSA prohibit the continued use of wetlines. Thus far, PHMSA has failed to address the recommendation, even though PHMSA's own website states:

"In the event that another vehicle strikes the side of the trailer, the impact would likely detach unprotected wetlines. The detached wetlines may release their entire contents and care should be taken to prevent fire. A gasoline spill of 50 gallons can create a fire over an area of up to 5,000 square feet if ignited. If not extinguished immediately, the fire could result in significant loss of life, or damage to property or the environment."

Clearly, this statement alone raises significant concerns, and I look forward to hearing more from PHMSA and the NTSB on this issue.



**The International Brotherhood of Teamsters**

**Testimony before the**

**Committee on Transportation and Infrastructure's Subcommittee on  
Railroads, Pipelines, and Hazardous Materials**

**On "Reauthorization of the Department of Transportation's Hazardous  
Materials Safety Program"**

May 14, 2009

Prepared by:  
LaMont Byrd, Director  
Safety and Health Department

International Brotherhood of Teamsters  
25 Louisiana Avenue, NW  
Washington, DC 20001  
(202) 624-6800

## Introduction

The International Brotherhood of Teamsters (IBT) welcomes the opportunity to comment before the Committee on Transportation and Infrastructure's Subcommittee on Railroads, Pipelines, and Hazardous Materials concerning the "Reauthorization of the Department of Transportation's Hazardous Materials Safety Program". We recognize the need for comprehensive hazardous materials regulations that include language that ensures the strong enforcement of the rules, clearly defines regulatory jurisdiction, and provides for safety and security training of workers who are involved in hazardous materials transportation activities.

The IBT represents approximately 300,000 workers in the United States who are involved in the transportation of hazardous materials including: tank truck drivers who transport bulk shipments of hazardous materials in quantities of up to 10,000 gallons; drivers and dock workers in the freight industry; drivers and warehouse workers in the hazardous waste transport industry; solid waste drivers; drivers and workers in the building and construction materials industry; airline pilots; and members who are employed in the public sector who are responsible for responding to traffic accidents. Many of these members must submit to comprehensive background checks as required by the Transportation Security Administration and the Homeland Security Administration.

This International Union is very concerned about the health, safety, and security of our membership and that of the general public that shares the roads and highways with our members. Our comments will focus on the following areas:

- Training for Hazardous Materials Workers
- OSHA Jurisdiction
- Hazardous Materials Endorsement / Criminal Background Checks
- Transportation of Lithium Batteries on Aircraft

#### **Training for Hazardous Materials Employees**

It is critical that hazardous materials workers be provided with comprehensive worker safety and security training to enable these workers to protect themselves from the hazards that are inherent in handling, loading, and unloading hazardous materials. Therefore, the Union with the assistance of our training centers, and funding from several sources, developed a comprehensive hazardous materials / hazardous waste training program for our members and other transportation workers. This program is discussed in greater detail below. As we have worked with many of our members who are regularly involved in loading, unloading, handling, and transporting hazardous materials as part of their normal work responsibilities, it is clear that many employers are providing training that may technically comply with the minimal training requirements as set forth by the DOT. However, the training does not provide the workers with the necessary information and understanding to enable them to protect themselves, their coworkers, and the environment from the hazards associated with working with hazardous materials. Our members report that the training provided by their employers may consist simply of providing the workers with handout materials or a short video that they must review on their own time with no opportunity for questions and answers. In addition, the training may be generic so as to not address the site-specific needs of workers to avoid hazards in a particular workplace. We think that many employers, faced with a severe economic crisis are opting to

either eliminate training programs or do the absolute minimum with respect to providing hazardous materials safety training. Management's position is that the workers should feel fortunate to have a job.

The IBT provides hazardous materials training to our members and other workers through the Safety and Health Department's Worker Training Program in conjunction with Teamster Training centers that are located throughout the United States. The target audience for training provided through this program includes truck drivers in tankhaul and freight operations, dock workers, construction workers, and warehouse workers. The training is funded by training grants that the IBT receives from the DOT Pipeline and Hazardous Materials Safety Administration (PHMSA), National Institute of Environmental Health Sciences (NIEHS), and from cent-per-hour contributions that are obtained through collective bargaining with employers that are signatory to joint labor – management training trusts.

The DOT PHMSA awarded the IBT \$1.6M to conduct a Hazardous Materials Instructor Training (train-the-trainer) program for hazardous materials employees. This training is conducted by IBT Master Trainers (Mentors) who were familiarized with the program's goals and objectives, curricula, and administrative procedures prior to commencing the train-the-trainer sessions. To successfully complete the train - the trainer course, aspiring trainers must complete a pre-requisite 8 hour course to familiarize the participants with the hazardous materials regulations and requirements. The trainers must then successfully complete a 40 – hour Train-the-Trainer course that is classroom based and subsequently teach at least one 8 – hour basic course while being monitored and evaluated by Mentors and IBT Worker Training

Program staff. The target audience for the 8 – hour basic course is typically rank-and-file co-workers of the new instructor, supervisors, or other management personnel, and the course is normally held at either a local union hall or at a site provided by a hazardous materials employer. To date, the DOT HMIT program has trained 211 trainers and 273 rank-and-file hazardous materials employees. We anticipate that 345 instructors and 814 rank-and-file hazardous materials employees will be trained by the end of the grant year. It should be noted that the rank-and-file employees who receive training in the program will do so as students of the new instructors who are completing their practical training prior to becoming a fully certified instructor.

The response that the program has received from the new instructors and from employers who have either participated in the program or allowed their hourly hazmat employees to be trained in the program has been very positive. We also see an increasing demand for the training. The IBT is very pleased with the program and strongly recommend that additional funding be provided and that it be expanded to allow more training of rank-and-file hazardous materials employees.

The NIEHS funded program is primarily focused on training workers who are responsible for remediating hazardous waste sites, transporting hazardous waste and hazardous materials to disposal sites, and responding to emergency releases of hazardous materials. This program includes a (4-hour hazardous materials transportation course) that is conducted as a module in a comprehensive 40-hour course that complies with the training requirements for the OSHA

HAZWOPER Standard and DOT hazardous materials regulations. During the current grant year, the program has trained 484 workers in the 4-hour course.

#### **OSHA Jurisdiction**

The IBT is aware of previous industry efforts to eliminate OSHA authority to protect workers who load, unload, and handle hazardous materials as part of their job responsibilities. This is an extremely critical issue for the Union as we recommend that any such attempts by industry during this reauthorization process be rejected. OSHA is clearly best suited to protect the health and safety of workers who perform the previously mentioned work activities.

It should be noted that in 1994, Yellow Freight Systems (now Yellow-Roadway) our largest LTL carrier and employs 40,000 Teamster members was involved in a case that went to the Occupational Safety and Health Review Commission regarding hazardous materials related citations, that OSHA issued to the carrier. In that case, OSHA concluded that the carrier did not comply with the standards concerning emergency response procedures for emergency releases of hazardous materials, including those related to providing personal protective equipment and training to employees who were involved in the response to such incidents. The carrier argued that OSHA did not have jurisdiction due to 4(b)(1) provisions pursuant to the Occupational Safety and Health Act of 1970, concerning preemption. However, the Commission ruled that OSHA did, in fact, have the authority to enforce its regulations and standards to regulate safety and health in the trucking industry.

This decision provided the Union with leverage and the carrier with the impetus to incorporate comprehensive language into the National Master Freight Agreement and other carriers that were signatory to the agreement concurred. Consequently, the IBT and the carriers that are signatory to the NMFA are bound by both regulatory requirements and contractual requirements to comply with the safety health provisions regarding hazardous materials as promulgated by both OSHA and the Department of Transportation.

A similar situation occurred involving our members who are employed at United Parcel Service (UPS). There were several incidents involving drivers and package handlers who encountered unlabelled or improperly labeled packages and consequently experienced serious injuries. Although the quantities of hazardous materials being transported through the UPS system did not require placarding per DOT regulations, there was sufficient materials present to cause injuries to workers and in some instances, evacuation of work areas and facilities. OSHA cited the company for failure to comply with the hazardous materials handling and spill response requirements. The parties were able to resolve the citations by signing a settlement agreement that required UPS to implement a comprehensive hazardous materials handling and hazardous materials spill response procedures in their facilities. Again, the IBT worked with the employer to incorporate provisions within the settlement agreement into the National Master UPS Agreement that currently 210,000 members). This language, in addition to rules enforced by OSHA provides our members with needed protection during their hazardous materials loading, unloading, and transporting activities.

Earlier this year, OSHA cited one of our employers for failure to provide training and personal protective equipment to transportation workers who were involved in the handling and shipping of packages that contained mercury. During the transport process packages were damaged and mercury spilled in the facility. Although OSHA determined that the hazardous materials workers involved experienced minimal exposures, and likely had no adverse health consequences, the incident could have been much worse and resulted in injuries or occupational illnesses to those exposed workers. Consequently, OSHA penalized the carrier for failure to comply with applicable rules governing training, personal protective equipment, and spill response.

Therefore, based on our experience working with OSHA concerning hazardous materials related issues, the agency is able to effectively protect transportation workers who are involved in the movement of hazardous materials. We would unequivocally recommend to the subcommittee that OSHA retain its jurisdiction to protect these workers, our members.

**Hazardous Materials Endorsement/Criminal History Records Check**

Since the implementation of requirements under the USA Patriot Act (PL 107-56), all Teamster members who drive in the Less-than-Truckload (LTL) sector of the trucking industry have been required by their employers to obtain the hazardous materials endorsement to their Commercial Drivers License (CDL). This blanket requirement stems from the fact that neither our drivers, nor the employers, know from one day to the next whether or not they will be carrying hazmat in quantities requiring placarding as part of their load. While there have been proposals before Congress to specify a class of "security sensitive" hazardous materials that

would require a Transportation Worker Identification Card (TWIC) and alleviate the need for some current hazmat-endorsed drivers to undergo a criminal history record check, we do not believe that proposal would necessarily relieve our drivers in the LTL sector from the burdens of a criminal history record check. Our employers may require a TWIC simply because of the uncertainty of the load a driver may be hauling. Liability issues might also force employers to be extra cautious in deciding who does not have to possess a TWIC to carry certain hazmat loads. While the Teamsters Union would ordinarily welcome relief of burdensome background checks for its members, a two-tiered system of security for hauling hazardous materials also establishes a system of “haves” and “have nots” – those drivers possessing a TWIC card versus those without. The TWIC was designed to eventually cover all transportation workers so that a secure multimodal transportation system could be created. This proposal would seem to be defeating the purpose of the TWIC.

Every effort should be made to reduce and or eliminate duplicative background checks. In the ports, some of our members have been burdened with obtaining multiple credentials to access individual ports, which have established their own security cards. Depending on the number of ports that a drayage driver services he could have up to 5 separate security cards, plus the TWIC. That adds up to several hundreds of dollars that the low-wage driver can't afford. And in the ports, until a sufficient number of card readers are in place, the TWIC is no better than a CDL to establish identity. CDLs are typically swapped with other drivers who don't have them, as are individual port security cards. These are typically waved in front of a security guard. The same may prove to be true with a TWIC for those drivers carrying security sensitive

hazmat. Until readers are in place at the points of interchange of loads and drivers, a TWIC does not offer any greater level of security.

For the most part, our members have not reported many problems with obtaining their hazardous materials endorsement. Initially, there were issues relating to access for fingerprinting, but for the most part, that has been resolved. We still remain concerned about disqualifying offenses being better defined to include only those that have a consistent and direct link to national security. We would encourage the appointment of a Task Force to review the list of crimes that disqualify individuals from obtaining employment and assess whether these crimes are accurate indicators of a terrorism security risk.

In addition, we support legislation, the Fairness and Accuracy in Employment Background Checks Act, soon to be reintroduced in the 111<sup>th</sup> Congress, that requires the Attorney General to adopt procedures to ensure the accuracy and completeness of federal criminal background records exchanged for employment purposes. It is estimated that the FBI database used for these purposes is at best 50% accurate and/or complete. This legislation, in part, will require the Attorney General to ensure the maximum possible accuracy and completeness of records before releasing information to the employer; provide the individual an opportunity to receive a copy of the record before its release; investigate challenges and provide results; and notify the inquirer of a challenge and provide a copy of corrected records.

Finally, the Teamsters Union is very concerned with any "similar" standards used to determine the equivalency of background checks conducted of Mexican drivers for transport of

hazardous materials into the United States. First, there is the issue of CDL equivalency between the two countries. The U.S. and Mexico signed a Memorandum of Understanding in the early 1990's recognizing the Mexican truck driver license as equivalent to the U.S. CDL. However, the Motor Carrier Safety Improvement Act of 2003 (MCSIA) changed the CDL program, making serious violations occurring in a CDL holder's personal vehicle— including DUIs – count against the CDL record. There is no similar treatment of a Mexican truck driver. Therefore, a Mexican driver, who under U.S. law could face suspension or revocation of his license, can continue to drive in the U.S. In addition, we still, to this day, do not know what physical or medical requirements are required of Mexican truck drivers. These CDL issues should be resolved along with the background check equivalency problem. Apparently, drivers in Mexico would undergo checks of their criminal history while in the United States, but not checks of their criminal history in Mexico. This makes no sense whatsoever. It in no way can be construed as undergoing “similar” background checks as required by statute. And until the Mexican government can ensure that it has documented that Mexican drivers have not committed offenses in Mexico that would disqualify them from hauling hazardous materials in the United States, those loads should be handed off to U.S. drivers who meet the background check requirements.

**Lithium Batteries**

There is much concern about the hazards associated with transporting lithium batteries on aircraft. In 2005, the Department of Transportation promulgated a rule that prohibits the bulk shipment of lithium batteries in the cargo hold of passenger aircraft. The National Transportation Safety Board, in 2007 and 2008, issued a total of eight safety recommendations

subsequent to a hazardous materials incident involving a cargo aircraft that was transporting bulk lithium batteries. The IBT agrees with the NTSB recommendations that include:

- Transport primary lithium batteries in fire-resistant containers and in restricted quantities at any single location on the aircraft
- Require that cargo shipments of secondary lithium batteries be transported in crew-accessible locations where portable fire suppression systems can be used;
- When accidents or incidents occur, require aircraft operators to provide emergency responders with consolidated and specific information about hazardous materials on board an aircraft, including the proper shipping name, hazard class, quantity, number of packages, and location;
- Require aircraft operators to report to the PHMSA 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 purposes;
- 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 secondary and primary lithium batteries;
- Eliminate regulatory exemptions for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries;

The IBT commends this Committee's concern about the safety and security of the travelling public and hazardous materials workers. As the amount of hazardous materials being transported in our Nation's transportation supply chain increases, so does the risk to our safety

and security. Enhancing the federal hazardous materials laws and reauthorizing the DOT's Hazardous Materials Safety Program are important steps that this Congress can take to protect hazardous materials workers, the general public, and the environment. We look forward to working with you on this important endeavor.



*U.S. Hazardous Materials Safety and Security Policies Need Major Revisions*

**Statement of Gerald A. Donaldson, Ph.D.  
Senior Research Director  
Advocates for Highway and Auto Safety**

**Reauthorization of the U.S. Department of Transportation  
Hazardous Materials Safety Program**

**Before the**

**Subcommittee on Railroads, Pipelines, and Hazardous Materials**

**Transportation and Infrastructure Committee**

**2167 Rayburn House Office Building**

**May 14, 2009**

Good afternoon. My name is Gerald Donaldson, Senior Research Director of Advocates for Highway and Auto Safety (Advocates). I am accompanied today by Henry Jasny, General Counsel. Founded in 1989, our organization has worked closely with the Transportation and Infrastructure Committee and has been integrally involved in many issues related to highway and large truck safety. Advocates is grateful for the opportunity to assist the subcommittee today in its inquiry into the safety and security of hazardous materials (hazmat) transported throughout the United States (U.S.) by highway as you consider reauthorization of the U.S. Department of Transportation's hazardous materials safety programs.

Today we would like to address critical issues affecting the safety and security of hazmat transported by motor vehicle in the U.S. Our testimony documents a weak, inconsistent, and incomplete federal policy approach to the safety and security of hazmat transported in both interstate and intrastate commerce.

Even prior to the national tragedy of September 11, 2001, Congress had already realized that the highway transportation of hazmat was fraught with perils. As a result, when the Hazardous Materials Transportation Act of 1975 was reauthorized in 1990 as the Hazardous Materials Uniform Transportation Safety Act (HMTUSA), Congress wanted to substantially upgrade the protection of public health and safety in hazmat transportation. Lax controls, procedures, and weak regulation made it difficult to determine how safely hazmat was being packaged, stored, and transported. Even our national reporting of hazmat spills and crashes by motor vehicles transporting hazmat was woefully inadequate.

Attacks on the World Trade Center and the Murrah Federal Building in Oklahoma City should have been startling wake-up calls that business-as-usual hazmat transportation was unequal to the task of protecting the U.S. people and their institutions. However, there was little indication that the agencies of jurisdiction knew that vigorous responses to the need of dramatically enhanced hazmat transportation safety were quickly needed. Since the national tragedy of September 11, 2001, heightened security controls have been applied by many departments and agencies of the U.S. federal government, with significant complementary policies newly adopted or modified by state governments as well.

The Government Accountability Office (GAO) in a major report on national transportation security released in 2003<sup>1</sup> repeatedly stresses the extraordinary difficulties of protecting transportation assets from attack, and how an uncoordinated, disaggregated, and incomplete approach by public authorities to the laws, regulations, oversight, and enforcement practices governing transportation security at all government levels continues to permit high vulnerability of surface transportation freight movement to disruption and illicit use. It is patent that the most susceptible portion of that massive, daily movement of goods across the nation to interception and dangerous use is the motor carrier transportation of hazmat, especially types of hazmat that can be used to threaten our country.

But actions taken especially by the Federal Motor Carrier Safety Administration (FMCSA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) since 2001 have not only been too slow in being engaged, they also have fallen short of the level of control over highway hazmat transportation that should have quickly been put in place. In some cases, as Advocates will show in our testimony, neither agency acted with dispatch to adopt aggressive, fail-safe regulatory controls over highway hazmat transportation. In one case, FMCSA waited 14 years after the statutory mandate from Congress in the 1990 hazmat reauthorization legislation to institute a hazmat special permit program for especially dangerous substances and gases, and three years after 9/11.

In most cases, the rules and policies currently in effect covering highway hazmat transportation have left pre-9/11 regulations largely unaltered. Moreover, Congressional direction in the 1990 HMUTSA have not been fulfilled. The Research and Special Programs Administration (RSPA), now PHMSA, only partially implemented the Congressional direction in the 1990 hazmat bill to conform intrastate hazmat transportation to the interstate requirements of the Hazardous Materials Regulations (HMR). One of the major actions taken in a mid-1990s regulatory proceeding was to exempt farmers from most of the HMR requirements regarding placarding, training, and emergency contact information. Farmers transporting large quantities of unplacarded hazmat also do not have to have commercial driver licenses (CDLs), including the basic CDL that must be supplemented with additional endorsements in order to qualify commercial drivers to transport hazmat.<sup>2</sup> Those exemptions involve large, dangerous

---

<sup>1</sup> *Transportation Security: Federal Action Needed to Help Address Security Challenges*, U.S. General Accounting Office (now the U.S. Government Accountability Office), Report GAO-03-843, June 2003.

<sup>2</sup> The original purpose of the farmer CDL exemption was to unencumber family farms from the responsibility of drivers on the farms having to comply with the multiple requirements of the CDL. 53 FR 37313, (Sept. 26, 1988). The original conditions for the waiver were established to ensure that the waiver focused specifically on this type of farm operation. However, 'farmer' is defined in 49 CFR § 390.5 as "any person who operates a farm or is directly involved in the cultivation of land, crops, or livestock which

quantities of hazmat that can easily be used to mount security threats against the U.S. However, after 9/11, those exemptions have remained unaltered by the successor agency, PHMSA, even now in the spring of 2009.

In addition, fundamental goals of the hazardous materials reauthorization enacted in 1990 remain unfulfilled with respect to the conformity of intrastate hazmat transportation to interstate commerce hazmat movement. FMCSA has demurred on requiring states, for example, to adhere to the special permit requirements of 49 U.S.C. § 5109 if state laws and regulations in place prior to the 2004 final rule differ, even if they fall short of the permit provisions of the new regulation. Other departures from intrastate hazmat commerce conformity are even more extensive: under current FMCSA regulation the HMR apply to motor carriers in intrastate commerce only if they transport hazardous wastes, hazardous substances, flammable cryogenic liquids in portable tanks and cargo tanks, and marine pollutants (as those terms are defined in the HMRs). 49 CFR § 171.1(a)(3). Moreover, such carriers transporting any other cargo are not required to use hazmat placards, *even if the cargo qualifies as hazardous under the federal HMRs*. Unless the vehicles used by these carriers had gross vehicle weight ratings (GVWR) of 26,001 pounds or more, they would not meet either the placarding or the GVWR test in the jurisdictional definition of a commercial motor vehicle pursuant to 49 CFR § 383.5, and the driver would also be exempt from CDL requirements.

Along with exemptions mentioned above that allow large quantities of hazmat to escape the regulation, oversight, and enforcement requirements of the HMR, the strong statement of Congressional purpose in the Hazardous Materials Uniform Transportation Safety Act of 1990 (HMTUSA) to conform interstate hazmat transportation federal requirements with intrastate laws, regulations, and practices has still not been realized.

Taken together, when our federal regulatory and enforcement controls over highway transportation of hazmat are judged for how well they ensure a much more stringent hazmat safety and security regime, they simply come up short. Our national policies are inadequate, incomplete, and inconsistent at both the federal and state levels to provide the level of safety and security that the American public deserves.

---

(a) [a]re owned by that person; or (b) [a]re under the direct control of that person.’’ Since farming partnerships, corporations and associations, even large agribusinesses, are legal ‘‘persons,’’ the States may exempt drivers working for these organizations from the CDL requirements. See, CDL Guidance by FMCSA in response to Question 30, <http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.asp?chunkkey=0901633480023236>.

Today, I will review three critical areas of hazmat safety and security needing legislative and regulatory action: hazmat transportation security plans, hazmat highway transportation special permits, and hazmat transportation location/tracking technologies.

**I. All Motor Carriers Should Have Security Plans Meeting Specific Criteria, Approved and Audited by the U.S. Department of Transportation.**

**A. Current Weak Regulation for Hazmat Security Plans.**

In 2003, RSPA, the predecessor agency of the current agency of jurisdiction over highway transportation of hazmat, PHMSA, issued a final rule on the security requirements for offerors and transporters of hazmat. 68 FR 14510 (March 25, 2003). This was preceded by a proposed rule published in 2002. 67 FR 22028 (May 2, 2002).

The proposed rule had the following main features:

- A requirement for motor carriers already registered with the agency to maintain a copy of that current registration certificate on board each motor vehicle transporting hazmat;
- A requirement for shipping papers to show the name and address of both the consignor (origin) and of the consignee (receiver) and for the shipping papers to show the shipper's U.S. DOT Hazmat Registration number;
- A requirement that shipper and carrier of certain highly hazardous materials to develop and implement hazmat transportation security plans; and,
- A requirement that hazmat shippers and carriers assure that their employee training includes a security component.

The agency received more than 270 comments "from hazardous materials shippers, carriers, industry associations, and local government agencies." In the final rule of March 25, 2003, RSPA, however, made no acknowledgement that the agency had received comments from any commercial motor vehicle or highway safety organization, although Advocates for Highway and Auto Safety filed extensive comments pointing out the cardinal shortcomings of the proposed rule.<sup>3</sup>

---

<sup>3</sup> See, Comments of Advocates for Highway and Auto Safety, Docket No. RSPA-02-12064 (HM-232), May 30, 2002.

**Highlights of the final rule:**

- **RSPA placed industry economic considerations before safety and security:**  
RSPA stated in the final rule that security measures cannot adversely affect the efficient transportation of hazmat or impose excessive economic burdens on the hazmat transportation industry. This elevates industry costs above safety and security needs for hazmat transportation.
- **No requirement that a copy of current hazmat registration be on board each vehicle:**  
RSPA proposed this requirement, but deleted it in the final rule.
- **No requirement that shipping papers have current hazmat registration number:**  
Deleted in the final rule by RSPA as too burdensome for industry.
- **No requirement that shipping papers have name and address of both consignor and consignee:**  
RSPA thought that the idea had merit, but the agency rejected a requirement in a final rule because too many adverse comments were received from industry opposing it.
- **RSPA weakened requirements for security plans for both offerors of hazmat and carriers of hazmat:**  
RSPA adopted a requirement for hazmat security plans,<sup>4</sup> but:
  - ▶ There are no required elements for the plans in the final rule.
  - ▶ Shippers and carriers can use any risk model they like.
  - ▶ RSPA will not review the plans for adequacy before the time of their adoption.
  - ▶ There is no indication that RSPA would sample security plans to audit in order to assess their strengths and weaknesses.
  - ▶ RSPA will not keep any of the security plans on file in the agency.

---

<sup>4</sup> The final rule limits the requirement to develop and implement security plans only to persons who offer for transportation or transport the following hazardous materials to develop and implement security plans: (1) A highway route-controlled quantity of a Class 7 (radioactive) material; (2) more than 25 kg (55 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material; (3) more than 1 L (1.06 qt) per package of a material poisonous by inhalation in Hazard Zone A; (4) a shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gal) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids; (5) infectious substances listed as select agents by the Centers for Disease Control and Prevention (CDC) in 42 CFR Part 73; and, (6) a shipment that requires placarding. The fifth category, select agents, are infectious substances identified by CDC as materials with the potential to have serious consequences for human health and safety if used illegitimately.

- RSPA weakened shipper and carrier responsibility for the terrorist use of hazmat: The agency strengthened the language of one feature of the new regulation to reduce the liability of a shipper or carrier if a terrorist action happens, despite their compliance with the terms of the final rule. In effect, this provides a hold harmless provision exonerating a shipper or carrier from any liability no matter how weak and inadequate its security plan and implementation might be prior to a terrorist use of hazmat.
- RSPA adopted a weakened requirement for employers who are shippers or carriers to validate information provided by job applicants to handle or transport hazmat: RSPA weakened the final rule by changing the employer's responsibility from "verify" to "confirm" that information supplied by job applicants is accurate and agreed with industry comments that "verify" is too stringent. Moreover, RPSA "do[es] not expect companies to confirm all of the information that a job applicant may provide as part of the application process." A question here is whether this meets the letter and spirit of the U.S. PATRIOT Act.
- RSPA adopted a weak requirement that employee hazmat training contain a security component: The required hazmat training was retained as a feature of the final rule, but the agency will not specify what that security training should consist of, would not establish specific security hazmat training principles related to compliance with security plans, and would perform no follow-up reviews of the quality and effectiveness of employee hazmat training.
- RSPA will not actually collect or retain any shipper or carrier security plans: Not only does RSPA not require specific security plan content, or review them for approval, or subsequently audit their quality, security plans of any hazmat shipper or carrier will be available only from the company, not from the agency. Security plans are thus not available to the public to evaluate their quality because RPSA will have no plans on file that it could provide voluntarily upon request or supply relevant documents in response to a Freedom of Information Act request.

In the post-9/11 era, it is hard to reconcile other stringent actions taken to protect the American people and their homeland against hazmat security breaches that can threaten the nation, with this new regulation that requires little that is mandatory for the hazmat transportation industry. The major failures of the regulation include no agency approval or oversight of how well security plans are constructed and implemented, and no assessment of the extent to which hazmat transportation security plans actually protect the U.S. people and their institutions against security vulnerabilities that can result in severe dangers from the exploitation and release of numerous dangerous hazmat substances.

**B. Subsequent Action by U.S. DOT Further Weakened Safety and Security Requirements.**

In a companion rulemaking action a few weeks later in 2003, RSPA issued an interim final rule (IFR) entitled "Enhancing Hazardous Materials Transportation Security." 68 FR 23832 (May 5, 2003). The IFR incorporates into the Hazardous Materials Regulations (HMR) a requirement that shippers and transporters of certain hazmat comply with federal security regulations that apply to motor carrier and vessel transportation. The final rule also revised the procedures for applying for an exemption from the HMR to require applicants to certify compliance with applicable federal transportation security laws and regulations.

However, the final rule had several major weaknesses:

- No Additions to List of Dangerous Hazmat for Security Reasons:  
The IFR required persons offering for transport or actually transporting hazmat to develop and implement security plans, as adopted in March 2003. But the IFR relies on the existing, pre-9/11 regulations concerning the types and amounts of hazmat and Centers for Disease Control "select agents." Despite the extensive list of substances that could be interdicted or illicitly used to mount threats against the U.S. people and their institutions, RSPA considered – but rejected – any expansion of the list of dangerous hazmat that could be used for terrorist purposes.
- RSPA allowed current, broad exemptions for large quantities of dangerous agricultural hazmat to remain unchanged.  
RSPA considered but rejected consideration of the application of the more comprehensive definitions of explosive hazmat used by the Bureau of Alcohol, Tobacco, and Firearms (BATF) that would have increased both the safety and security controls over a much wider list of especially dangerous hazmat. The BATF list includes fuel oil and ammonium nitrate fertilizer of any amount that PHMSA continues to allow in very large amounts to be exempted for farmers and farm suppliers. These drivers of these farming vehicles are not required to have commercial driver licenses, to have emergency contact information for hazmat incidents, to have placards, or to have training in the handling of large quantities of fuel oil and ammonium nitrate fertilizer. Ammonium nitrate and fuel oil when mixed produce a powerful explosion and are easily obtained for use in threats against the U.S. RSPA concluded in the IFR that mixtures of ammonium nitrate and fuel oil, like that used to blow up the Murrah federal building in Oklahoma City in 1995, "do[es] not meet the definition of a Class 1 material under the

HMR” and that they “generally do[es] not pose a sufficient security risk when transported in commerce to warrant detailed employee background checks.” However, the amounts of both substances allowed under current PHMSA regulation – a maximum of 16,094 pounds of ammonium nitrate fertilizer and up to 502 gallons of liquids or solids, including fuel oil – are far larger than the estimated amounts used to blow up the federal building in Oklahoma two years prior to this rulemaking action.<sup>5</sup>

- RSPA rejected any changes in the present minimum quantities of hazmat requiring placarding:  
RSPA also concluded that its present threshold amounts for placarding of certain radioactive materials, explosives, and agents toxic by inhalation are sufficient to control any security risk of their improper use. This means that the agency has not adopted lower amounts than currently in federal law and regulation so that placarding and the use of a security plan would apply to these smaller amounts of hazmat. RSPA also decided that it would not review or disturb the current threshold quantities of different hazmat requiring placarding, such as toy caps, signal devices, flares, and distress signals less than 454 kg (1,000 lbs.). As a

<sup>5</sup> An estimated 5,000 pounds of ammonium nitrate and fuel oil were used to demolish the Murrah Federal Building, an explosion that killed 168 people and injured 800. Two years later in early 1997, RSPA issued a final rule under Docket HM-200 that exempted certain agricultural chemicals and “materials of trade” from most of the HMR. 62 FR 1208 (Jan. 8, 1997). The current regulation in 49 CFR § 173.5 exempts farmers who are private motor carriers in intrastate commerce from all requirements of the entire subchapter governing transportation, marking, packaging, placarding, emergency contact information, and training if the transportation takes place within a 150 miles of a farm. RSPA further weakened the HM-200 final rule in early 1998 by allowing state controls over hazmat transportation conducted in wholly intrastate commerce, to govern transportation of these exempted agricultural chemicals, despite the fact that the state regulations could be weaker than the federal regulations, if the state law or regulation was in effect prior to Oct. 1, 1998. 63 FR 8140 (Feb. 18, 1998). Not only did these RSPA concessions undermine the regulation by allowing weaker, less secure pre-existing state rules, this open-ended grandfathering action arguably fails to comply with the clear direction of Congress in the 1990 hazardous materials reauthorization legislation that RSPA conform intrastate hazmat transportation operations to the federal interstate transportation model in the HMR. *See*, 49 U.S.C. 5103(b)(1).

It should also be noted here that PHMSA has continued to allow small quantities of “materials of trade also to be transported in highway intrastate commerce without full adherence to the HMR. These “materials of trade,” although arguably transported in relatively small amounts in each instance, can easily be stockpiled to use for illicit purposes. In response to docket comments, RSPA in 1997 also expanded the list of the exempted “materials of trade” to include several types of hazmat that the agency did not propose in the SNPRM. Those exemptions are “not restricted to purely intrastate carriers. Thus, RSPA is providing significant regulatory relief to small (and many large) entities that currently transport hazardous materials by motor vehicle in interstate commerce.” 62 FR 1214. In addition, RSPA permitted certain non-specification cargo tanks in intrastate commerce to continue to be used to transport flammable liquid petroleum. *Id.*, at 1216. Those exemptions are also still undisturbed by events or subsequent regulatory actions since their adoption in 1997.

result, the agency states that it has judged that “[w]hen shipped in amounts that do not require placarding, such shipments do not pose a security risk when transported in commerce sufficient to warrant detailed employee background check requirements at this time” and they “generally do not present a significant security threat involving their use during transportation for a criminal or terrorist act.” There is no support in the IFR for this conclusory assertion. It is easy to formulate scenarios where unplacarded, but significantly large, quantities of hazmat are incrementally stockpiled for illicit purposes.

Although RSPA openly states that it is authorized under 49 U.S.C. § 5101 *et seq.* to designate any hazmat, including explosives, as dangerous when transported in commerce because it poses an unreasonable risk to health, safety, or security, the agency has judged “that the most significant security risks are associated with the transportation of explosives shipments in quantities that require placarding under the HMR.” The shippers and carriers must formulate security plans to cover such transport, but the agency has not changed the types and quantities of explosives subject to placarding that were adopted in a different – pre 9/11/01 – era.

## **II. A New Evaluation of the FMCSA Hazmat Special Permits Regulation Is Needed.**

In connection with a general review of the substances and quantities that should be placarded, Congress should consider an allied review of the need for expanding the list of hazmat requiring special federal permits pursuant to 49 U.S.C. § 5109. That list is comprised of especially dangerous types of hazmat requiring permits that was forged in an earlier era that did not have the sense of public urgency about potential threats to the health and safety of the American people that can result from the use of other types of dangerous hazmat. Also, as discussed below, FMCSA should be directed to evaluate the scope of § 5109 hazmat permits and their applicability to intrastate commerce.

Under current law, the implementing regulations for §5109 in 49 CFR Parts 385, 386, and 390 were adopted by FMCSA in 2004, 14 years after the mandate enacted in 1990 by Congress in the hazmat reauthorization legislation. Hazardous Materials Uniform Transportation Safety Act, Pub. L. 101-615, §8(b) (Nov. 16, 1990). That final rule expanded the statutory list of substances that Congress wanted to control with special permits for highway transportation, but many dangerous substances were left out. 69 FR 39350 (June 30, 2004). The substances for which a special hazmat highway transportation federal permit are the following:

- ▶ Any Class 7 radioactive materials whose transportation is route-controlled

- ▶ Division 1.1, 1.2, 1.3 explosives in amounts exceeding 55 pounds
- ▶ Division 1.5 material requiring placarding pursuant to 49 CFR Part 172, Subpart F.
- ▶ Division 2.3 and 6.1 Hazard Zone A Toxic-by-Inhalation materials in packaging with a capacity greater than 0.26 gallons; Hazard Zone B Toxic-by-Inhalation materials in a bulk packaging greater than 119 gallons; Hazard Zone C or D Toxic-by-Inhalation materials in a bulk packaging equal to or greater than 3,500 gallons.
- ▶ A shipment of compressed or refrigerated liquid methane or natural gas or other liquefied gas with a methane content of at least 85 percent in a bulk packaging equal to or greater than 3,500 gallons.

Advocates regards this list as incomplete and insufficient to protect the American people. Several other categories and quantities of dangerous hazmat present a security threat to the U.S. and should be regulated through special permit with its accompanying approval and oversight mechanisms. For example, several serious biohazards list in 49 CFR § 172.323 can be used to threaten the U.S. people and their institutions. Paradoxically, some of these biohazardous materials are required to be covered by the security plans for transport currently administered by PHMSA, such as infectious substances listed as select agents by the CDC in 42 CFR Part 73. Also, materials that are highly toxic through skin contact are not required to have special permits. Furthermore, the allowable quantities in the 2004 FMCSA final rule triggering special permit requirements are too high. This may especially be true in the case of toxic by inhalation, methane, natural gas, and other liquefied gases that may be transported in quantities just under 3,500 gallons without a special permit.

In our comments to the rulemaking docket on the contours of the special permit program proposed by FMCSA, Advocates stated that the agency should consider substantially expanding this list and lowering the quantities permitted. This view was supported in docket comments by Onyx, a major hazardous waste transportation company, which similarly argued that FMCSA should at a minimum consider expanding the range of special permit hazmat to the categories listed in 49 CFR § 172.800(b). That list governs the development and implementation of security plans required for handling the listed types of hazmat. One of those categories covers select agents or toxins regulated by the CDC under 42 CFR part 73 or, by April 1, 2007, a select agent or toxin regulated by the United States Department of Agriculture under 9 CFR Part 121.<sup>6</sup> These

---

<sup>6</sup> "The biological agents and toxins listed in this part have the potential to pose a severe threat to public health and safety, to animal health, or to animal products." Vol. 9 CFR § 121.2.

select agents and toxins should be evaluated along with several other types of hazmat to fall under the special permit requirements of § 5109.

A peculiar feature of the categories of hazmat subject to the RSPA security plan requirements and to FMCSA's special permit requirements is the strong overlap between the list for each agency subject to the regulations, but also the exclusion of types of hazmat from RSPA's list in FMCSA's list, and vice versa. The security plan requirements of PHMSA and the special permit requirements of FMCSA should be concordant, but the scope and quantities of both regulatory schemes need to be substantially revised.

It is important to note that in adopting the final rule, FMCSA ignored the pivotally important report published by the Government Accounting Office (GAO)<sup>7</sup> two months prior to the supplemental notice of proposed rulemaking (SNPRM) published in late 2003 that formed the basis for the final rule. 68 FR 49737 (Aug. 19, 2003). Although Advocates drew the agency's attention to the implications for special permit hazmat risk assessment contained in this major report on security threats to the U.S., the agency simply disregarded a careful examination of the concerns and recommendations in this important report. GAO in the report repeatedly stresses the extraordinary difficulties of protecting transportation assets from attack, and how an uncoordinated, disaggregated, and incomplete approach by public authorities to the laws, regulations, oversight, and enforcement practices governing transportation security at all government levels continues to permit high vulnerability of surface transportation freight movement to disruption and illicit use. It is patent that the most susceptible portion of that massive, daily movement of goods across the nation to interception and dangerous use is the motor carrier transportation of hazmat, especially types of hazmat that can be used to threaten our country.

FMCSA also ignored the clear intent and purpose of Congress in directing agencies of jurisdiction over hazmat transportation to conform intrastate transportation of hazmat to the requirements of the HMR. In the final rule, FMCSA rejected Advocates' arguments in our comments to the SNPRM docket that intrastate hazmat transportation must be governed by the special permitting process of § 5109, asserting that "an intrastate carrier would not be required to comply with any Federal Motor Carrier Safety Regulations (FMCSRs) to which it is not already subject." 69 FR 39350, 39351. Yet, in the same breath FMCSA stated that foreign hazmat commerce in the U.S., such as Mexico-domiciled motor carriers transporting hazmat, would be subject to the special permit requirements. *Id.* This is an irrational and dangerous stance. It means that a Mexico-domiciled motor carrier transiting our southern border to penetrate the U.S. for

---

<sup>7</sup> "Transportation Security: Federal Action Needed to Help Address Security Challenges," *op. cit.*

only a few miles as a drayage operation to drop a hazmat trailer for pickup by a U.S.-registered motor carrier is subject to the special permit requirements, while motor carrier making an intrastate hazmat trip of § 5109 materials in a large state for the length of the state may have no such obligation if a similar state permit requirement is not already in effect.

This statement that intrastate transportation of special permit hazmat is ungoverned by the agency's implementing regulations is not defensible. It ignores express Congressional intent in hazardous materials reauthorization legislation directing the Secretary to reduce the disparities between the intrastate and interstate transportation of hazmat, including transportation by motor carrier. Congress expressly consigned broad authority to the Secretary to achieve increased uniformity between the interstate and intrastate transportation of hazmat by highway. In fact, one of the signal purposes of the legislation was to increase and strengthen the Secretary's authority to ensure public safety through such uniformity, including the issuance of appropriate regulations to fulfill this statutory goal. 49 U.S.C. §§ 5101, 5103(b)(1)(B).<sup>8</sup> The Secretary was directed to create a close rapprochement between interstate and intrastate hazmat transportation safety policy and practice. When disparities between the two domains demonstrably compromise the goals of public safety, the Secretary can pre-empt differing state hazmat laws and regulations to achieve greater uniformity, including any attendant or derivative administrative mechanisms or programs that the Secretary finds necessary.

Congress made it clear in HMTUSA that it specifically wanted agencies of jurisdiction to create more uniformity between the two domains and minimize any differences. The FMCSA is evading clear statutory instruction in an attempt to regulate

<sup>8</sup> This has been repeatedly recognized, emphasized, and acted upon by the agencies of jurisdiction of the U.S. Department of Transportation since the passage of HMTUSA. For example, the authority to create uniformity between intrastate and interstate hazmat transportation was exercised in RSPA's final rule of Docket No. HM-200 that required that all intrastate shippers and carriers comply with the agency's implementing regulations for hazmat motor carrier transport. 62 FR 1208 (Jan. 8, 1997). RSPA asserted in that final regulation that such state conformity to federal regulation was "necessary to comply with amendments to the Federal hazardous materials transportation law mandating that DOT regulate the transportation of hazardous materials in intrastate commerce." *Id.* at 1208. Moreover, this drive towards adopting intrastate-interstate uniformity in federal motor carrier hazmat transportation policy was recognized by the Federal Highway Administration (FHWA), the agency preceding the transfer of motor carrier safety authority to the FMCSA, in its 1998 notice asking for public comments on the final report and recommendations of the Alliance for Uniform Hazardous Materials Transportation Procedures concerning U.S. Department of Transportation implementation of a nationally uniform permitting system for motor carrier transport of hazmat, pursuant to 49 U.S.C. § 5119. The FHWA stated in that notice that even the original "HMTA [Hazardous Materials Transportation Act] was designed to replace a patchwork of State and Federal laws and regulations concerning hazardous materials transportation with a framework of uniform, national regulations." 63 FR 15362, 15363, March 31, 1998. That acknowledgement has apparently had no impact on the policy choice offered in FMCSA's special hazmat permit final rule.

only the minimum number of motor carriers while simultaneously lowering its oversight and enforcement obligations also to the minimum possible. In light of current safety and security needs, which cannot be readily separated, it is surprising and disturbing that the agency refuses to regulate the maximum number of carriers to ensure that they are vetted by an appropriate safety permitting system.

That authority has already been exercised on numerous occasions to create more uniformity between interstate and intrastate hazmat transportation. RSPA published a final rule for Docket No. HM-200 in early 1997. 62 FR 1208 (Jan. 8, 1997). The new regulation required that all intrastate shippers and carriers comply with that agency's implementing regulations for hazmat motor carrier transport. RSPA asserted that such state conformity to federal regulation, with very limited exceptions, was "necessary to comply with amendments to the Federal hazardous materials transportation law mandating that DOT regulate the transportation of hazardous materials in intrastate commerce." *Id.* at 1208. RSPA's final rule expressly pre-empts state laws, regulations, and other administrative mechanisms that conflict with prevailing federal hazmat law and regulation. RSPA is clearly fulfilling the Congressional direction of HMTUSA by applying the broad authority granted to the Secretary to achieve more intrastate-interstate hazmat transportation uniformity. Equivalent authority for the FMCSA to establish more uniformity in the domain of motor carrier hazmat transportation is clearly comparable that of RSPA/PHMSA.

Similarly, RSPA again emphasized the Congressional direction to achieve uniformity between federal and state hazmat law and regulation in a Federal Register notice asking for comments on a published report:<sup>9</sup> "The HMTA [Hazardous Materials Transportation Act] was designed to replace a patchwork of State and Federal laws and regulations concerning hazardous materials transportation with a framework of uniform, national regulations." 63 FR 15363.

FMCSA in the final special permit rule also saw fit to weaken the adopted regulation in several ways from the proposed version it had offered in a supplemental notice of proposed rulemaking (SNPRM) published in late 2003. For example, although the agency proposed that written route plans prepared by the motor carrier govern all of the regulated materials that could be transported by highway only under special permit, the agency reduced the requirement for a written route plan to cover only some of the types and quantities of hazmat requiring a § 5109 permit – only radioactive Class 7 and Division 1.1, 1.2, 1.3 explosive materials. Similarly, although FMCSA proposed

---

<sup>9</sup> "Recommendations on Uniform Forms and Procedures for the Transportation of Hazardous Materials, Supplementary Notice of Report Availability," 63 FR 16362 (March 31, 1998).

provisions for a communications system to be installed on each motor vehicle used to transport special permit materials to enable the driver to immediately contact the motor carrier during the course of hazmat transportation, FMCSA deleted this requirement in the final rule. The agency also weakened allied requirements for a driver to communicate with the motor carrier every two hours when operating a motor vehicle transporting special permit materials, changing the requirement so that contact was only required twice a day. All of these changes, as well as others, were adopted in response to industry claims of burden. It should be stressed here that this was an attempt by FMCSA to implement some system of tracking and communication that would ensure that special permit hazmat in transportation would have its location known to the dispatching motor carrier. Right now, there is still no requirement for any type of location and tracking system, such as EOBRs, for any motor carriers, including none for hazmat motor carriers, much less for special permit hazmat transportation by highway of what FMCSA decided were the most dangerous substances requiring the federal permit.

Finally, FMCSA in its 2004 final rule on implementing the safety permit system of § 5109 required that special permit Class 7 radioactive hazmat undergo a pre-trip inspection conforming to the Level VI inspection protocol developed by the Commercial Vehicle Safety Alliance (CVSA), but rejected Advocates' request in our comments that the agency extend the requirement to all dangerous hazmat transported under special permit. 69 FR 39357. This means that there is no required federal intensive pre-trip inspection for the three classes of explosives covered by the special permit or the other dangerous substances. It also means that even roadside inspections may consist only of a driver-only or vehicle-only inspection without the additional rigor and detail of a Level VI inspection adapted for use with non-route controlled radioactive hazmat. Advocates strongly supports a requirement that all special permit hazmat motor vehicles undergo an adapted version of the Level VI inspection for other special permit hazmat and that a CVSA decal be applied to the vehicles showing that they passed a rigorous pre-trip inspection.

### **III. All Hazmat Motor Carriers Should Be Required to Have Electronic On-Board Recorders (EOBRs) and Event Data Recorders (EDRs).**

It is crucial for both safety and security for hazmat motor carriers to be able to track the routing and have moment-to-moment real-time location of hazmat. EOBRs have been strongly and repeatedly recommended by the National Transportation Safety Board (NTSB) for many years for use on all commercial motor vehicles.<sup>10</sup> This ensures

---

<sup>10</sup> NTSB elevated its recommendation for EOBRs, which it has stressed has gone unheeded for many years, to its Most Wanted safety improvements list, citing its Recommendation H-07-41.

that drivers are not fatigued from driving illegal, excessive hours pursuant to the limits specified in the hours of service regulations of FMCSA; that routing controls are not being violated; and that hazmat loads are not being transported on roads and bridges that are subject to lower weight limits than the gross vehicle weight of the truck carrying hazmat. Many hazmat motor carriers have installed and used EOBRs for several years and have found that their use increases carrier operational efficiencies, including improved dispatching with more reliable consignee delivery timing, use of less fuel, reduced commercial motor vehicle maintenance, better rested drivers, and, accordingly, increased profitability. The use of EOBRs, even in general freight delivery, has been lauded many times by several major motor carriers as improving both the safety and the efficiency of their companies' operations. This is a technology where the benefits of enhanced safety, increased security oversight and control, and more economical and, hence, profitable operations intersect.

Section 113(a) of the Hazardous Materials Transportation Authorization Act of 1994 (Pub. L. 103-311, Aug. 26, 1994) requires the Secretary to prescribe regulations to improve compliance by commercial motor vehicle drivers and motor carriers with hours-of-service requirements, and to improve the effectiveness and efficiency of federal and state enforcement officers reviewing such compliance. However, the U.S. Department of Transportation has taken no action to fulfill this statutory mandate.

The ability to determine the location of drivers and hazmat loads on trucks is a crucial aspect of general hazmat safety oversight, but it should be regarded as especially necessary for transportation of hazmat of the types and quantities that trigger PHMSA-required security plans and FMCSA-required § 5109 special permits. Advocates urges Congress to require EOBRs for all motor vehicle hazmat carriage in both intrastate and interstate commerce, including transport by motor vehicle. The EOBRs should include Global Positioning System (GPS) technology permitting real-time tracking of hazmat loads, but should also be integrated with engine and transmission functions to record vehicle speeds and other vehicle operating information fed through and captured by the electronic control module (ECM). The installation and use of EOBRs should be a requirement for gaining operating authority as a hazmat motor carrier. Safety inspectors conducting new entrant safety audits, Compliance Reviews, and roadside inspections should be able to access EOBR data, including GPS information, in order to confirm

---

<http://www.nts.gov/Recs/mostwanted/FedMWLPPTwebFINAL.pdf>. In an amendment to its October 2008 Most Wanted list, an unprecedented action, NHTSB effectively censured the U.S. Department of Transportation for its failure to equip commercial motor vehicles with EOBRs and changed its rating of DOT's progress from code Yellow, representing slow but acceptable progress, to code Red, an indication that NTSB believes that DOT has failed to act to adopt this crucial safety technology.

commercial driver hours of service compliance, as well as to determine whether hazmat vehicles have taken prohibited routes or have evaded safety inspections or weigh stations.

Similarly, hazmat motor vehicles, especially large trucks, including tank trucks, should be equipped with event data recorders (EDRs) that will record critical vehicle operational events of both pre-crash maneuvers, including hazmat spills, as well as specific vehicle dynamics information on the severity of crash avoidance vehicle behavior involving steering, braking, and potential rollover. EDRs have also been strongly recommended by NTSB for many years.<sup>11</sup> The extraordinary value of EDR data for improving both vehicle and driver safety performance, and the safety of highway design features, have been demonstrated in several studies and rulemaking actions over the past several years, including publications released through the National Academy of Sciences. See, for example, *Use of Event Data Recorder (EDR) Technology for Highway Crash Data Analysis*, National Cooperative Research Program Contractor Final Report, Project 17-24, Dec. 2004. The National Highway Traffic Safety Administration published its final rule on the policy for EDRs on passenger motor vehicles in 2006 (71 FR 50998, Aug. 28, 2006). However, that policy governs only the data parameters to be collected by EDRs if passenger motor vehicle manufacturers choose to install them voluntarily. The final rule does not mandate their installation.

Despite the fact that FMCSA was specifically required by Congress in Section 408 of the Interstate Commerce Commission Termination Act of 1995 (Pub. L. 104-88, Dec. 29, 1995, 109 Stat. 803, 958) to address the problem of hours of service regulations by evaluating EOBRs, the agency procrastinated until it was compelled by an appellate court in 2004 to address the problem. *Public Citizen v. FMCSA*, 374 F.3d 1209 (D.C. Cir. 2004). The court acted because FMCSA had proposed adoption of EOBRs in the hours of service rulemaking proposal in 2000, 65 FR 25540 (May 2, 2000), but then had a change of heart after strong opposition from major sectors of the trucking industry. FMCSA terminated EOBR rulemaking in 2003 when it issued its first attempt at an amended hours of service regulation. 68 FR 22456 (April 28, 2003). Even then, the agency responded with only an advance notice of proposed rulemaking in September 2004 instead of proposing a long overdue EOBR regulation. 69 FR 53386 (Sept. 1, 2004).

The appellate court in 2004 could not have been stronger in chastising FMCSA for backing off its 2000 proposal to require EOBRs. The court characterized FMCSA's

---

<sup>11</sup> NTSB has evaluated the state-of-the-art of EDRs on all commercial motor vehicles most recently in its report on the Bluffton University motorcoach tragedy, <http://www.nts.gov/publictn/2008/HAR0801.pdf>, and strongly urged EDRs to be installed on all motorcoaches and school buses. See, NTSB Recommendations H-99-53 and H-99-54.

retreat as demonstrating "questionable rationality," and it added that it "cannot fathom . . . why the agency has not even taken the seemingly obvious step of testing existing [recorders] on the road" to see if EOBRs should be required on all large trucks.

The pending EOBR proposal also violates FMCSA's legislative mandate in Sec. 101(a) of its enabling legislation, the Motor Carrier Safety Improvement Act of 1999, to promote commercial motor vehicle safety to the highest feasible degree. Pub. L. 106-159, Dec. 9, 1999. The proposed rule clearly demonstrates that the agency had no intention of stopping the widespread, systematic violations of hours of service limits and routine falsification of paper logbooks through the mandatory use of EOBRs. Despite FMCSA's claim that it wanted to reduce fatigue among truck drivers, the EOBR proposed rule cast a large shadow of doubt that the agency is at all serious about reducing commercial driver fatigue by abating hours of service driving time violations by all interstate truck drivers.

Although there is documented, widespread violation of even the excessive working and driving hours of the current hours of service regulation, FMCSA in its recent EOBR rulemaking proposal, 72 FR 2340 (Jan. 18, 2007), disregarded all previous research and survey literature on the pervasive violation of hours of service regulation and, instead, argued that EOBRs should be required only for the "worst offenders." These "worst offenders" are those motor carriers who are detected in Compliance Reviews (CRs) as having at least 10 percent of their drivers found to have violated hours of service and then, within another two years, at least 10 percent are found again in a subsequent CR to have violated the regulation. Only then would the agency impose a requirement to install and use EOBRs to record driving time. The agency's estimates of how many motor carriers would be compelled to install and use EOBRs for a minimum of two years amount to less than one-tenth of one percent of registered motor carriers.

The remainder of the proposed rule provided a *laissez faire* approach to the crucial issues of the accuracy and security of EOBRs. Despite the agency's own current regulation for Automatic On-Board Recording Devices, its contracted research recommendations, and the publicly available views of agency staff for the need to integrate EOBRs with operating functions of the vehicle, FMCSA would allow EOBRs that are not integrated with engine functions such as the vehicle electronic control module that monitors and records transmission use, vehicle distance, and speed. This proposal in many respects is even weaker than the agency's current regulations for Automated On-Board Recording Devices in 49 CFR § 395.15 that requires integral synchronization and recordation of engine use, road speed, miles driven, date, and time of day. Using location-only tracking systems prevents the mutual corroboration of vehicle-based electronic control module data with driving hours represented by GPS systems,

EOBR, a supposed "on-board" device, is a misnomer for some of these devices. The agency proposed the use of hand-held cellular telephones that can be transferred from driver to driver, and vehicle to vehicle, even though major motor carriers like Schneider National oppose handheld GPS devices serving as EOBRs. But even this is not the end of the security and accuracy defects of the proposal: FMCSA will not set certification requirements for EOBRs, will not certify manufacturers, will perform no oversight of EOBR operation and accuracy, and will not certify repair and recalibration facilities. Moreover, it will not require any specific security requirements to ensure that only the authorized driver actually operates the commercial motor vehicle in connection with an EOBR. FMCSA only proposes that some kind of security control be used. Combined with the use of portable, hand-held devices, this *laissez faire* approach to crucial issues of veracity and security will generate fraud and abuse, and facilitate the illicit use of many kinds of hazmat.

It would be difficult to construct a more irresponsible approach to use of a technology that can help to control hours of service violations, reduce fatigue, and help improve driver health. Yet, FMCSA stated its concern in the proposed rule that EOBRs might have a deleterious effect on driver health by causing undue stress!

Highway and truck safety organizations, enforcement authorities, and even some major motor carriers, such as J.B. Hunt, have called for the universal, mandatory installation of EOBRs to stop these flagrant, growing abuses of hours of service that can only increase the dangers of big truck operations on our nation's highways. The Canadian Trucking Alliance called for mandatory use of EOBRs on November 26, 2004. Furthermore, all European Union (EU) countries require tamper-proof electronic tachographs, and, according to major EOBR manufacturers, other countries in addition to those in the EU require recording devices, including Morocco, Argentina, Brazil, Peru, Uruguay, Venezuela, Israel, Turkey, Japan, South Korea, and Singapore. Australia, a country that has suffered many casualties from an extraordinarily high level of commercial driver fatigue-triggered crashes, is considering electronic tachographs for recording driving hours.

The National Transportation Safety Board (NTSB) has also recommended for years that motor vehicles be equipped with EDRs in order to provide the same indispensable information that has been gathered for years through the use of flight recorders in commercial aviation. *See*, for example, NTSB Safety Recommendation H-04-26 issued Aug. 30, 2004, and the commercial motor vehicle findings and recommendations of the NTSB's Transportation Event Recorders Symposium, June 4-5, 2003. NTSB also has listed the need for EOBRs on all interstate commercial motor vehicles in its current 2008 Most Wanted list of transportation safety improvements and called on FMCA to mandate them. As already indicated earlier, NTSB currently regards

FMCSA's action on its EOBR recommendation to be Code Red – Unsatisfactory Response.

In the current safety and security environment, requiring EOBRs and EDRs to be used by hazmat motor carriers is simply prudent national public policy to forestall the use of a wide variety of hazmat to mount threats against the U.S. people and its institutions. Yet, no motor carriers of any kind in the U.S. are required to install and record tracking and hours of service data to ensure the real-time whereabouts and commercial driver compliance with hours of service requirements, including driving time limits per shift and over a tour of duty, total working hours, and minimum off-duty rest time.

Advocates strongly recommends that Congress consider legislation mandating EOBRs and EDRs for, at a minimum, all hazmat motor carriers in both intrastate and interstate commerce.

#### **IV. Conclusion.**

Advocates' testimony portrays a weak, incomplete, and inconsistent federal response to the safety and security of hazmat transported in both interstate and intrastate commerce. Our testimony addresses selected major areas of hazmat safety and security policy, but even this evaluation clearly shows that there is a disconnect between the real need for substantially elevated safety and security controls over hazmat in a post-9/11 era and the startling "business as usual" regulatory choices made over the last several years. Those choices made by PHMSA and FMCSA contradict other, more stringent safety and security countermeasures adopted in other transportation sectors, for example, in commercial aviation. Hazmat transportation by motor vehicle has not been subjected to a comprehensive, detailed and rigorous upgrade of policies and practices. In almost all cases, it appears that the rationale for the weak responses to the need to tighten highway transportation of hazmat is based on avoiding burdens to industry. But in each case, there is really no evaluation of what the real implications are of a continuing lax regulatory approach to highway hazmat transportation, particularly an assessment that has predictive value in judging how all our surface transportation policies jointly administered by two modal agencies, FMCSA and PHMSA, help or harm our national security posture and our day-to-day safety needs to ensure that hazmat handling, storage, transportation, and tracking of hazmat loads, the vehicles, and their drivers are as safe as possible.

#### **Congress Should Consider the Following Recommendations:**

- ▶ Mandate EOBRs and EDRs on all hazmat motor carriers. At a minimum, the mandate should cover all § 5109 special permit hazmat transportation and hazmat transportation requiring security plans.

- ▶ Require untethered trailer tracking technologies that will provide real-time information on the location and status of sensitive hazmat on board a trailer.
- ▶ Require specific training and security plan criteria to be applied by PHMSA for motor carriers, and that those plans be approved, stored, and periodically audited for adequacy by PHMSA.
- ▶ Require PHMSA and FMCSA to expand the types of materials subject to the hazmat regulations for security plans and § 5109 special permits. This includes PHMSA and FMCSA expanding the list of materials and quantities considered hazardous by the BATF that should be subject to the Federal Motor Carrier Safety Regulations and the HMR for placarding, training, security plans, special permits, and other governing requirements.
- ▶ Direct PHMSA and FMCSA to lower the quantities of *all* types of hazmat currently permitted to be transported without placarding.
- ▶ Direct FMCSA and PHMSA to conform intrastate transportation of hazmat to the laws and regulations governing hazmat transportation, including special permit hazmat, that cover both FMCSA's and PHMSA's legal responsibilities for the safe transportation of hazmat.
- ▶ Require appropriately adapted CVSA Level Six pre-trip inspections of all motor vehicles transporting special permit and security plan-related hazmat both in intrastate and interstate commerce.

These actions are the bare minimum to ensure that the people and institutions of the U.S. are adequately protected against both poor safety policies and practices in the motor carrier industry as well as increasing the quality of safety management of hazmat transportation to lower the chances that unscrupulous individuals and organizations will not use dangerous, lethal materials to endanger our population.

Advocates deeply appreciates this invitation to testify, and we are ready to respond to any question you may have and provide any additional information.



**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**  
**CYNTHIA DOUGLASS**  
**ACTING DEPUTY ADMINISTRATOR**  
**PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**  
**UNITED STATES DEPARTMENT OF TRANSPORTATION**  
**BEFORE THE 111<sup>TH</sup> 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, PHMSA 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.

**INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS**



STATEMENT OF

ELIZABETH M. HARMAN, MBA, MS  
DIRECTOR OF HAZARDOUS MATERIALS / WMD  
TRAINING DEPARTMENT

BEFORE THE  
HOUSE SUBCOMMITTEE ON  
RAILROADS, PIPELINES AND HAZARDOUS  
MATERIALS

ON

REAUTHORIZATION OF THE DEPARTMENT OF  
TRANSPORTATION'S HAZARDOUS MATERIALS  
SAFETY PROGRAM

MAY 14, 2009

Thank you Chairwoman Brown, Ranking Member Shuster, and distinguished members of the Subcommittee for the opportunity to testify before you today. My name is Elizabeth Harman and I serve as Director of the Hazardous Materials / WMD Training Department of the International Association of Fire Fighters (IAFF). I am pleased to appear before you today on behalf of IAFF General President Schaitberger and the nearly 300,000 fire fighters and emergency medical personnel who comprise our organization.

IAFF members protect eighty percent of the nation's population and serve as the first line of defense during any hazardous materials incident. It is from this perspective as America's front line hazardous materials responders that we speak today to the important role the Department of Transportation plays in ensuring the safe transportation of hazardous materials and ensuring that communities are able to safely and effectively respond to a hazmat incident should one occur.

Madam Chairwoman, I testify today not only as a representative of the IAFF, but as someone who understands first-hand the importance of this issue. I am a fully certified fire service instructor and have previously administered training programs at Johns Hopkins University, School of Medicine and the University of Maryland, Maryland Fire and Rescue Institute. I have also served as a full-time fire fighter / paramedic for the City of Fairfax Fire and Rescue Department, and know from experience to the practical implications PHMSA's hazardous materials safety program has on local emergency response.

Our nation's transportation systems are burdened with more hazardous materials today than ever before. As the potential for serious hazmat incidents continues to grow, it is more important than ever to ensure that our nation's emergency responders are properly trained and have sufficient information to conduct a safe and effective response. The Department of Transportation, through its Pipeline and Hazardous Materials Safety Administration (PHMSA), and its predecessor agencies, has been an innovative leader in this field and has helped ensure the safe transportation of hazardous materials. In order to build on this record of success, important changes are now needed to increase the effectiveness of current hazmat response training programs and expand and improve hazardous materials identification tools.

#### **The Need for Training**

According to the National Fire Protection Association (NFPA), fire departments in the United States receive over 350,000 calls related to hazardous materials emergency response each year. As the number of hazardous materials incidents has increased, so too has the complexity and dangerous nature of responding to such incidents multiplied. This is especially true as it relates to our nation's transportation systems. Hazardous materials of nearly every class are to be found on our nation's roads and rails, skies and seas. These materials may react violently to air or water, cause serious injury to individuals when inhaled or upon skin exposure, and may pose new hazards when exposed to other materials. While their transportation is generally safe and uneventful, an accident or

incident involving hazardous material can easily place the general public, as well as the individuals who respond to such incidents, at risk.

When an incident involving the transportation of hazardous materials does occur, the individuals tasked with responding to and containing the incident are, almost without fail, fire fighters. Unfortunately, despite the potential for a hazmat incident in every community in America, far too many fire fighters are insufficiently trained to ensure a safe and effective response. In its Second Needs Assessment of the U.S. Fire Service, NFPA estimates that thirty-eight percent of fire fighters whose duties involve hazmat response lack formal training of any kind. Furthermore, only twenty-nine percent of fire departments report all personnel to be trained in even the basics of hazmat response.

While it is clear from such figures that training is needed for new recruits and personnel who have yet to undergo training, it is also worth noting the hazardous materials response training is not a one-time event. It is essential that all first responders undergo refresher training to ensure continued proficiency. The Occupational Safety and Health Administration's Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) requires emergency responders to receive annual refresher training "of sufficient content and duration to maintain their competencies." In addition to providing responders an opportunity to maintain their skills, refresher training is vital to familiarize responders with new technology which may be used or encountered during a response.

Unfortunately, the lack of adequately trained personnel in the fire service can have serious real-world implications including property loss, death and injury to both private citizens and responding fire fighters.

In addition to the threat inadequate training poses to lives and property, an improper response can also have serious economic implications. On March 21<sup>st</sup>, a tractor-trailer overturned on Route 33 near Wind Gap, Pennsylvania. The first responders, fearing the trailer contained a corrosive gas, shut down the highway and evacuated five-thousand people. While there are many hazardous materials incidents where erring in the favor of the public safety is the wise choice, this accident was not one of those. Fire fighters learn to recognize the differently shaped containers that transport different materials. The accident in Pennsylvania involved a liquid tank truck which contained a corrosive liquid, not a corrosive gas. Had the first responders been trained to recognize the difference, the number of individuals needing to be evacuated would have been greatly reduced.

Given the threat to individuals' personal safety and economic well-being, it is incumbent that we ensure fire fighters nationwide receive hazardous materials training to provide a safe and effective response.

#### **IAFF Training Programs**

Under PHMSA's Hazardous Materials Emergency Preparedness (HMEP) grants program, the IAFF has received an annual grant to train instructors to deliver hazardous materials training to emergency responders nationwide, in the largest metropolitan areas

to remote rural communities. The IAFF takes its mandate to train first responders extremely seriously, employing a full-time, dedicated staff to administer our training programs. We provide training to any responder whose duties potentially include hazmat response, including both professional and volunteer fire fighters, free of charge. This grant has enabled the IAFF to significantly increase training rates in the first responder community, training approximately 2,698 instructors who have gone on to provide training to an additional 59,000 emergency responders. The IAFF's unique training model avails responders with real-world training in hazardous materials response that few institutions can match, delivered by instructors who are both certified fire instructors and certified hazmat responders. Furthermore, because the instructors trained through the IAFF's HMEP program deliver training directly to responders in their own communities, instructors are able to tailor their presentations to address the unique concerns and challenges to a particular community, such as a chemical plant or specific hazardous materials shipping route.

Independent evaluations of IAFF training have found its training programs to be cost-effective, providing significant hands-on training for a low cost per contact hour. Evaluations have also found instruction to be highly effective, with students reporting high post-course confidence and achieving high post-quiz scores.

For example, I recently received a letter from a student who reported that as a direct result of our training, he has significantly changed his response to a hazardous materials call:

*I was personally faced with a call after the class which made me realize what I had possibly missed for years. It was a simple smoke condition at our local high school. A science experiment had complications and filled a wing with light smoke. In the past I would have conducted ventilation and allowed the students back in when it cleared. This is the first time that I considered using a gas detector inside; this revealed that there were high levels of [carbon monoxide] which lasted one and a half hours after I would have normally allowed the students back in. I realize I possible averted exposing these students to a hazard I never would have considered.... [I] now realize that I was [previously] actually jeopardizing the safety of the people that rely on my service and with the training I received, I feel confident that I can keep my crew safe and protect the community.*

#### **Increasing Effectiveness of Current Training Programs**

Despite the demonstrable results our training achieves, our effectiveness is restricted due to limited funding and statutory restrictions on eligible HMEP training activities. Training requests regularly exceed our resources. It is from this perspective that we are concerned that the Administration has chosen to cancel its proposed increase to hazardous materials transportation fees. While we understand that the Administration projects funds to be sufficient to fully fund all grants through the end of the Fiscal Year, it also acknowledges that the current amounts of the registration fees are not sufficient to fully fund HMEP grants in the future. The IAFF strongly supported the Department of

Transportation's original proposal to increase fees, as it allowed for the IAFF to train numerous additional trainers, resulting in an exponential increase in trained responders. We hope the Administration will revisit this issue in the near future to address the serious hazmat training needs in the first responder community.

Unfortunately, even with the increased funds generated by a fee increase, the \$28 million provided through the Department's HMEP grant program is insufficient to meet the hazmat training needs of America's fire fighters. As mentioned previously, thirty-eight percent of fire fighters responsible for hazardous materials response lack formal hazmat training of any kind. The training needs of these individuals, combined with the equally-urgent needs of new recruits and refresher training needs of veteran responders, are currently growing due to the current economy. Unfortunately, in making tough budgetary decisions, many local communities facing reduced revenues are choosing to cut funds for training. Increased funding under the HMEP grant program would help the states and organizations such as the IAFF increase the number of students trained to overcome the current knowledge gap, as well as help fill the unmet needs of local fire departments hit hard by the recession.

Additionally, under current law, we are currently limited to training instructors to deliver hazmat response training programs in their own communities. While this model can, and has proven to be, effective, it has inherent limitations. Most notably, a trainer's effectiveness depends on the support he or she receives in his or her own community. If a local fire department fails to invest the necessary time or resources, such as backfilling positions so that responders are able to receive training, or is unable to do so due to budgetary limitations, the trainer's skills and knowledge, in which scarce federal resources have been invested, will go wasted.

Working within these limitations, the IAFF is committed to improving its training programs to maximize their effectiveness. Over the past year, the IAFF has added supervised training sessions to support local instructors once they have received training from the IAFF. These sessions were designed to ensure the competency of the local instructors, as well as the transfer of knowledge to the students through their teaching. The IAFF is also in the process of developing an evaluation program to determine the real-world impact of HMEP-funded training on the end user.

Even with these improvements, the efficacy of current training programs would be markedly improved through the authorization of additional training activities under the law. Specifically, training activities should be expanded to include proven effective methods such as direct student training and distance learning. Allowing for such activities will help overcome the inherent limitation of the train-the-trainer model. Additionally, eligible activities should be expanded to include funding for a department's backfill needs. By providing funds to fill positions while responders are at training, we can help ensure that the weak economy does not unnecessarily interfere with the public safety.

#### **Providing Appropriate Training**

In addition to providing sufficient funds to train a greater number of first responders, the Department of Transportation has a duty to ensure that emergency responders receive the appropriate level of training. OSHA regulations identify several different training levels for workers who may be required to respond to hazmat incidents as part of their duties. In providing five different levels of hazardous materials emergency response training, OSHA appropriately recognized that individuals should be trained at different levels, depending on the duties and functions each worker is expected to perform.

Unfortunately, the level of training that is currently provided to emergency response personnel in many states and localities is at the “awareness” level. Awareness training is intended for employees at facilities where hazardous substances are present, and is intended to train such employees to recognize potential releases of a hazardous substance and “initiate a response sequence by contacting the appropriate authorities,” which in most cases would be the local fire department. While this level of training would be appropriately provided to, for example, a rail worker, this level of training is wholly inadequate to prepare the first responders to a hazmat call.

The minimum level of training needed by first responders is “operations” level. Operations level training is specifically designed for the initial emergency response which occurs within minutes of the incident being reported. These emergency responders stabilize the situation and prepare the emergency scene for the hazmat specialists who will undertake direct mitigation. The mission of responders who are trained at the operations level is to “protect nearby persons, property, and the environment from the effects of the release.” They are trained to contain the release from a safe distance, keep it from spreading and prevent exposures.

OSHA identifies three additional levels of hazardous materials training for those specialist hazmat responder who are called after the initial responders have secured the area. Hazardous Materials Technician, Hazardous Materials Specialist, and On-scene Incident Commander require increasingly specialized training and increasingly advanced competencies. While these are also appropriate levels of training for certain fire fighters to receive, operations level training should be the very minimum level of competency required of a fire fighter.

In its aforementioned Second Needs Assessment, NFPA reports that only one-fifth of fire departments have all personnel certified to the operations level. Any response to an incident involving hazardous materials carried out by inadequately trained personnel presents a danger to the public as well as the responders themselves. To better protect the public safety, Congress should ensure that all training delivered through the HMEP grant program should be at the operations level or greater.

#### **Improving Hazardous Materials Identification Tools**

In addition to bolstering their emergency responder training programs, the Department of Transportation has an important role to play in making it easier for responders to identify

hazardous materials. Accurate, timely information is key to any successful emergency response, and it is especially important on a hazmat call. Without the ability to quickly and accurately identify hazardous cargo and numerous crucial details about such cargo, fire fighters may lack the information necessary for a safe and proper response.

Fire fighters currently rely on two simple but effective tools to identify hazardous materials during transportation: placards and shipping papers. These simple tools have generally proven successful in their ability to relay information to first responders because they are highly recognizable and easy to understand, two important criteria in the high-stress and chaotic scene of a hazardous materials incident. Despite their life-saving importance, placards and shipping papers also have serious limitations – they may be damaged, hidden or unreachable during an incident. A fire enveloping a tractor-trailer, for instance, may destroy physical shipping papers, and the smoke from a fire may obscure a placard from sight. And, although the information they provide is crucial, it is limited in its scope.

New technologies can help first responders better identify hazardous materials and better inform such individuals on how best to respond to an emergency involving such materials. Congress has repeatedly sought to improve emergency responder identification systems over the past two decades. In 1990, Congress directed the Department of Transportation to undertake a rulemaking to improve identification systems and funded a National Academy of Sciences study on the subject. In 1994, Congress directed the Department to fund pilot projects testing certain identification technologies. Despite these efforts, there have not been any significant improvements in hazardous cargo identification systems in more than thirty years.

One promising technological initiative is the establishment of an electronic freight management program. Providing access to continuously updated electronic shipping information will help emergency responders identify hazardous substances during a hazmat incident without putting personnel at risk. An electronic system also has the potential to enhance a department's response by providing details shipping papers might lack, such as comprehensive first aid information. While such a system can provide many advantages to a responder, it also has significant limitations. The mobile electronic equipment necessary to receive such information at the scene of an incident may be prohibitively expensive for many fire departments. Additionally, spotty wireless reception may preclude many departments from receiving information at the scene of an incident, especially for incidents that occur in rural areas. Despite these limitations, electronic freight management can provide another important tool in the fire fighter's arsenal when responding to a hazmat incident.

We are also supportive of the Department's proposal to establish a commodity flow tracking system. Tracking and mapping commodity movements throughout the United States will provide responders with a more complete picture of threats facing particular communities, allowing state and local governments the opportunity to better protect their communities and plan for potential emergencies. For example, as a first responder, knowing that ammonia is regularly shipped through my community will allow my

department to ensure that its personnel are fully trained in how to respond to an ammonia release, how to treat injuries due to ammonia inhalation, and how to best protect the community and themselves in such a scenario. Such information will also help local departments pre-plan evacuation scenarios, stockpile needed equipment, and conduct exercises to ensure their responders are practiced in incidents involving ammonia.

It is also important to ensure that incident commanders have ready access to e-shipping and commodity flow data. In the chaos of a hazmat incident, responders do not have the luxury of time. Whatever systems are developed must guarantee that incident commanders can access information on-demand, twenty-four hours a day, and that such information be accurate and up-to-date.

Although new technologies have the potential to aid hazmat responders, current identification tools such as CHEMTREC have also transformed the way responders attack a hazmat incident. A 24-hour public service hotline, CHEMTREC serves emergency responders by helping them obtain information and assistance for incidents involving chemicals and hazardous materials. A vital lifeline for responders, CHEMTREC serves as a model for any hazmat information service. Such hotlines, however, are of little use to responders if they are unavailable at the time of an incident or provide less than the necessary information. Therefore, the Department may wish to consider setting standards for such services. Any hotline like CHEMTREC would need to provide 24-hour access to a live operator. Information provided must include response guidelines and the ability to immediately connect a responder to a material's manufacturer, as well as to incident commanders who have previously managed similar hazardous materials incidents. Finally, should the Department choose to set such standards, we would respectfully request that it consult closely with the end-users that will actually be using the system on an everyday basis to ensure it meets their needs and expectations.

Even with the aid of these powerful tools, placards and physical shipping papers will remain vital tools for fire fighters on the scene of a hazardous materials incident. These simple tools will continue to play an important role in ensuring responders can quickly and accurately identify a hazardous material for the foreseeable future. In the world of hazardous materials incidents, redundancy and simplicity of information is not simply convenient, it can be life-saving. It is therefore absolutely crucial that new identification tools must supplement, rather than replace, current requirements for placarding and physical shipping papers.

#### **Information Sharing**

Before concluding my testimony, I'd like to touch upon one additional point and address the ongoing implementation of the National Hazardous Materials Fusion Center. Such a center, tasked with the collection and analysis of data relating to hazardous materials incidents, has been long-overdue. Too often, lessons from past hazmat incidents are not shared with the fire service at large. By sharing key information gleaned from past

responses, the fusion center has the ability to transform the fire service's response to hazmat incidents.

While we believe that such an endeavor is critically necessary, its continued success will depend in large part on its continued implementation. The center must ensure that the information gathered is turned into useful information, including planning tools, best practices, prevention strategies, and training programs. The center must also ensure that such information is funneled to local fire departments so that they may take advantage of its important work. Finally, the center must involve rank and file responders in its development and day-to-day functioning to ensure that the end-user's perspective is considered.

### **Conclusion**

This concludes my testimony. On behalf of the International Association of Fire Fighters, I appreciate the opportunity to share with you our views on how to best improve our nation's hazardous materials response capabilities. By committing additional resources for emergency responder training and the enhancement of hazmat identification tools, we better ensure the safety of communities and their citizens nationwide and continue to guarantee that our nation's transportation network remains a safe and efficient mode for private travel and public commerce. To the extent that the IAFF can assist the Subcommittee in achieving this vision, I am happy to offer our expertise and pledge to work closely with you and your staffs.

Again, I'd like to thank the Subcommittee for the opportunity to testify today and am happy to answer any questions you may have.

**National Transportation Safety Board**

**490 L'Enfant Plaza, SW  
Washington, D.C. 20594  
(202) 314-6000**



**Deborah A.P. Hersman  
Board Member**

**Testimony of the Honorable Deborah A.P. Hersman  
Member  
National Transportation Safety Board  
Before the  
U.S. House of Representatives  
Committee on Transportation and Infrastructure  
Subcommittee on Railroads, Pipelines, and Hazardous Materials  
Hearing on Safety Issues Involving the Transportation of Hazardous Materials  
Washington, DC  
May 14, 2009**

---

Good morning, Chairwoman Brown, Ranking Member Shuster, and the Members of the Subcommittee. Thank you for the opportunity to appear before you today on behalf of the National Transportation Safety Board (NTSB) regarding the safe transportation of hazardous materials. Today, I would like to highlight some specific issues of concern to the NTSB, including the air transportation of lithium batteries, the hazards of wet lines on highway cargo tanks, and the loading and unloading of hazardous materials from railroad tank cars and highway cargo tanks. I will conclude with some brief remarks about improvements in railroad tank cars, the placement of tank cars transporting high-risk materials in trains, and the bulk transport of acetylene in cylinders on highway trailers and hydrogen in tube trailers.

#### **Air Transportation of Lithium Batteries**

##### Issues

Inadequate understanding of the cause of fires involving lithium batteries, and inadequate public awareness about safely carrying lithium batteries on aircraft.

##### Background

The first issue I wish to address is the air transportation of lithium batteries. There are two types of lithium batteries: primary and secondary. Primary lithium batteries are non-rechargeable and they are commonly used in items such as watches and pocket calculators. They contain metallic lithium that is sealed in a metal casing. The metallic lithium will burn when exposed to air if the metal casing is damaged, compromised, or exposed to sustained heating. Secondary lithium batteries, also known as lithium-ion batteries, are rechargeable and are commonly used in items such as cameras, cell phones, laptop computers, and hand power tools. The secondary lithium batteries contain electrically charged lithium atoms, or ions, in a flammable liquid electrolyte. Overheating of the battery can result in the ignition of the flammable electrolyte. Halon suppression systems (the only fire suppression systems certified for aviation) are not effective in extinguishing fires involving primary lithium batteries, but can be effective in extinguishing fires involving secondary lithium batteries.

The demand for primary and secondary lithium batteries has skyrocketed since the mid-1990s as the popularity and use of electronic equipment of all types has similarly grown. As the

use of lithium batteries has increased, the number of incidents involving fires or overheating of lithium batteries, particularly in aviation, has likewise grown. The NTSB has investigated three such accidents, which I would like to review for the committee.

Los Angeles International Airport, Los Angeles, California

On April 28, 1999, a fire destroyed two cargo pallets that included boxes of primary lithium batteries at Los Angeles International Airport, Los Angeles, California. The pallets had been taken off an inbound passenger-carrying flight from Japan. During the movement of one of the pallets by a forklift within the cargo facility, the pallet fell off the forklift and rolled onto its side against another pallet. The pallet of primary lithium batteries was moved a second time and placed next to a second pallet of primary lithium batteries. Three minutes later, smoke and a small fire were observed on the previously overturned pallet. The fire spread to the adjoining pallet of batteries, and both pallets erupted in flames. The fire department extinguished the fire in about 25 minutes only after separating the packages on the pallets and deluging them with water.

Interviews with the air carrier's employees revealed that it was not uncommon to overturn a pallet and that other loads of batteries had been damaged and sometimes resulted in spillage of the batteries.

The lithium batteries on the two pallets were neither identified nor shipped as hazardous materials. Instead, they had been shipped as ordinary freight under an exception to the *Hazardous Materials Regulations*. At the time of this incident, lithium batteries containing limited amounts of lithium and meeting certain packaging requirements were "excepted" (excluded) from all regulations. Lithium batteries not meeting the exception criteria had to be transported as a regulated hazardous material, be identified on the shipping documents, and have appropriately marked and labeled packaging. The batteries involved in this incident met the criteria for the exceptions.

The NTSB's investigation of this incident revealed that these batteries presented an unacceptable risk to aircraft and passengers. The NTSB recommended that the Pipeline and Hazardous Materials Safety Administration (PHMSA, then the Research and Special Programs Administration (RSPA)), with the Federal Aviation Administration (FAA), evaluate the fire hazards posed by lithium batteries in an aviation environment and require that appropriate safety measures be taken to protect the aircraft and occupants. (PHMSA was established in 2005 and assumed regulatory responsibility for the hazardous materials safety program. PHMSA will be used in all subsequent references.) The NTSB also recommended 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.

Memphis, Tennessee

On August 4, 2004, fire destroyed freight in a unit load device (a cargo container configured for aircraft) that was being loaded on a cargo-only aircraft in Memphis, Tennessee. As the unit load device was about halfway onto the aircraft, loading personnel smelled smoke and lowered the device to the ground. When fire responders arrived and opened the unit load device, a fire flared inside it.

The fire originated in a cardboard box that held two secondary lithium battery modules that were components of a prototype battery pack for an electric car. The package also contained metal tools taped to a cardboard lining in the top of the box. The accident package was identified on shipping documents as "lithium batteries" and class 9 miscellaneous hazardous materials. The package was shipped under a U.S. Department of Transportation (DOT) "competent authority approval," a formal written authorization for the limited shipment and transportation of a specific hazardous material in specially designed containers or packaging. The DOT approval applied to the complete battery pack and not the individual battery modules. The DOT approval further stipulated that the battery pack was to be secured in an insulated fiberboard case. The fiberboard case was to be enclosed and secured in a wooden crate.

On the basis of this evidence, the NTSB determined that the fire was caused by the failure of unapproved packaging to adequately protect the secondary lithium batteries from short-circuiting during transportation.

In conjunction with its investigation of the Memphis incident, the NTSB requested accident data from PHMSA about other reported incidents involving lithium batteries. According to PHMSA, six other incidents involving lithium batteries in air transportation were reported from January 1989 through May 2005. In five of these incidents, the batteries caused fire or charring of the packaging. During the same period, six incidents involving lithium batteries in other modes were reported, but only one included a fire directly related to the transport of lithium batteries.

The NTSB did not issue any additional safety recommendations as part of its investigation of the Memphis incident. Because the safety recommendations to evaluate the fire hazards of lithium batteries issued following the 1999 incident in Los Angeles addressed lithium batteries in general, the NTSB felt these recommendations would also apply to secondary lithium batteries, and that PHMSA should evaluate the fire hazards of secondary lithium batteries.

#### Philadelphia, Pennsylvania

The most recent accident investigated by the NTSB occurred on February 7, 2006. After an in-flight cargo fire, a cargo aircraft made an emergency landing at its destination airport, Philadelphia International Airport, Philadelphia, Pennsylvania. The aircraft and most of the cargo were destroyed by fire after landing.

The NTSB examined the contents of the cargo containers where the fire most likely originated, and found that several electronic devices containing secondary lithium batteries were shipped in these containers. No batteries were found that exhibited any damage identifying a source of ignition, nor could any determination be made that secondary batteries found in the debris had been subject to recalls.

Although the cause of the in-flight fire ultimately could not be determined, the prevalence of electronic equipment in the main cargo compartment caused the NTSB to closely examine safety issues involving the transportation of secondary lithium batteries on commercial aircraft, including batteries in airline passengers' laptop computers and other personal electronic devices. The NTSB concluded from its investigation that testing and incident data indicated that both

primary and secondary lithium batteries pose a fire hazard, and that an in-depth analysis of the causes of primary and secondary lithium battery failures would improve the safe transportation of these batteries.

The NTSB issued safety recommendations to PHMSA in December 2007 to address growing concerns about the increasing frequency of rechargeable and non-rechargeable lithium batteries overheating and igniting when transported on aircraft, either as cargo or as items in passenger baggage or carry-on items. Because the causes of these battery failures in many cases remain unknown, the NTSB issued multiple safety recommendations urging PHMSA to address the problems with lithium batteries on a number of fronts, including reporting all incidents; retaining and analyzing failed batteries; researching the modes of failure; and eliminating regulatory provisions that permit limited quantities of these batteries to be transported without labeling, marking, or packaging them as hazardous materials. In January 2008, the NTSB issued additional recommendations to PHMSA and the FAA to address the NTSB's concerns about the lack of public awareness about issues involving the overheating and ignition of lithium batteries.

#### Action to Date

In December 2004, PHMSA published an interim final rule that addressed the safety recommendations issued following the 1999 incident in Los Angeles. This rule prohibited the transportation of most cargo shipments of primary lithium batteries on board passenger-carrying aircraft. Cargo shipments of equipment containing small- and medium-sized primary lithium batteries (containing less than 25 grams of lithium) were still permitted on passenger-carrying aircraft, as were shipments of secondary lithium batteries, including those in equipment and within specified weight restrictions.

On August 9, 2007, PHMSA issued a final rule on the transportation of lithium batteries that became effective on January 1, 2008. The 2007 rule permanently adopted the amendments contained in the December 2004 interim final rule. The 2007 rule also included the following new requirements:

- Testing of the packaging for small lithium batteries;
- Labeling, marking, and packaging for single packages containing 12 or more small lithium batteries;
- Shipments of medium-sized lithium batteries to be transported and identified as class 9 hazardous materials when transported by air (and vessel); and
- Permitting airline passengers and flight and cabin crew to carry spare lithium batteries on aircraft as carry-on items only.

On January 14, 2009, PHMSA published another final rule concerning the transportation of batteries and battery-powered devices on aircraft. This final rule addressed the harmonization of the U.S. *Hazardous Materials Regulations* with international standards for transporting hazardous materials, including lithium batteries, by air. This rule did not address the NTSB's 2007 and 2008 recommendations other than by enhancing the incident reporting requirements for battery failures.

Action Needed

Between December 2007 and November 2008, the Consumer Product Safety Commission issued 5 recalls of nearly 800,000 secondary lithium batteries because of overheating, melting, or creating a fire hazard.

PHMSA needs to expedite actions to implement the following safety recommendations:

Safety Recommendations

--to the Pipeline and Hazardous Materials Safety Administration:

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. (A-07-104); Current classification: Open—Acceptable Response

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 lithium batteries, including those contained in or packed with equipment, be transported in crew-accessible locations where portable fire suppression systems can be used. (A-07-105); Current classification: Open—Acceptable Response

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 purposes. (A-07-107); Current classification: Open—Acceptable Response

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 secondary and primary lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items. (A-07-108); Current classification: Open—Acceptable Response

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. (A-07-109); Current classification: Open—Acceptable Response

--to the Federal Aviation Administration and the Pipeline and Hazardous Materials Safety Administration:

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. (A-08-1); Current classification: Open—Acceptable Response

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. (A-08-2); Current classification: Open—Acceptable Response

### **Wet Lines on Highway Cargo Tanks**

#### Issue

Gasoline and other hazardous materials can be transported in piping below cargo tanks that can be released onto vehicles in accidents.

#### Background

Presently, each external product pipe or wet line on a cargo tank semitrailer transporting flammable liquid may contain as much as 50 gallons of product directly underneath a fully loaded cargo tank. Because the wet lines are designed to break away in order to prevent damage to the tank shell, the wet lines could release a substantial amount of product on a striking passenger vehicle, which may be trapped beneath the cargo tank and engulfed in a fire. This issue predominately applies to tank trucks delivering gasoline to local gas stations.

In 1978, the Office of Motor Carrier Safety within the Federal Highway Administration established a policy allowing gasoline to be carried in wet lines because of "economic and practicality considerations." In 1985, PHMSA published a notice of proposed rulemaking (NPRM) that increased the bottom accident damage protection for cargo tanks, including the wet lines. In 1988, in the process of developing the final rule, PHMSA staff prepared an issue outline memorandum that discussed the external piping issue. The memorandum noted:

It is unreasonable and illogical to allow the piping to be considered as an acceptable container for the transport of gasoline. Therefore, the petroleum industry's decision to bottom load in compliance with the Clean Air Act and their unwillingness or inability to drain the cargo lines has resulted in widespread non-compliance with the intent and letter of the *Hazardous Materials Regulations* as interpreted by RSPA [PHMSA] for the transportation of gasoline.

When PHMSA published the final rule in 1989, PHMSA noted that wet lines were not appropriate packaging for hazardous materials:

Bottom loading and unloading outlets on cargo tanks, although very useful, present the inherent risk that if damaged the entire contents of the tank may be released. Piping

attached to the outlet valve is provided with a sacrificial device that is designed to break under accident loads.

In addressing comments from the petroleum industry regarding data supporting the infrequency of accidents resulting in damage to the wet lines and the loss of lading, PHMSA responded that although such accidents were infrequent, the consequences of such accidents could be substantial. PHMSA encouraged the petroleum industry to consider and evaluate all possible ways to eliminate this risk in the most cost effective manner. The industry responded but not with a solution. The American Petroleum Institute (API) replied that the analysis of wet line accident statistics indicates that the probability is quite low that a fatality will be directly attributed to a wet line failure. Based on the results of its analysis, API cancelled a study to evaluate alternate means of loading cargo tanks that would result in dry loading lines. Consequently, PHMSA prohibited the transportation of poison B liquids, oxidizer liquids, liquid organic peroxides, and liquid corrosives in wet lines, but allowed gasoline and petroleum products in external unprotected wet lines. PHMSA justified the exception for gasoline by the lack of sufficient accident data and the inadequacy of information concerning possible alternative procedures and/or equipment.

Subsequent to this rulemaking activity, the NTSB investigated two accidents in which wet lines were damaged, and gasoline in the wet lines was released and ignited. On October 9, 1997, a tractor/cargo tank semitrailer transporting 8,800 gallons of gasoline was struck by a car in Yonkers, New York. The car hit the right side of the cargo tank in the area of the tank's external wet lines, releasing the gasoline in them. The ensuing fire destroyed both vehicles, and the driver of the car was killed. Five months after this accident, the NTSB investigated a similar accident that happened on February 15, 1998, in Wilmington, Delaware. A tractor/cargo tank semitrailer transporting 8,900 gallons of gasoline struck the left rear of a car parked on the right shoulder of a bridge. The truck pushed the car into a concrete barrier bordering the bridge. A fire ensued, destroyed the car, and moderately damaged the truck. The NTSB determined that three of the four wet lines on the cargo tank fractured during the collision, releasing about 12 gallons of gasoline. As a result of these investigations, the NTSB recommended that PHMSA prohibit the carrying of hazardous materials in external piping of cargo tanks, such as wet lines, which may be vulnerable to failure in an accident (Safety Recommendation H-98-27).

In another accident in Mustang, Oklahoma, in July 1998, local authorities attributed the severity of the accident to the failure of wet lines after an automobile hit a cargo tank and broke the wet lines. The gasoline in the wet lines was released and ignited, engulfing the automobile and cargo tank in fire.

#### Action to Date

In December 2004, PHMSA published an NPRM addressing the transportation of flammable liquids in external wet lines. PHMSA noted in the NPRM that 190 accidents involving wet lines were reported in the 12-year period from January 1, 1990, through December 31, 2001, and included at least 7 fatal accidents in which unprotected wet lines were damaged and gasoline was released. PHMSA also acknowledged that there was a degree of underreporting of hazardous materials transportation accidents of all types.

To improve the safety of wet lines, PHMSA proposed to prohibit flammable liquids, including gasoline, in external product piping (that is, wet lines) unless the piping was protected from impact. Two options that would meet this performance standard would be the use of purging systems for existing external piping, or replacing the existing external piping with shortened or recessed piping. In the NPRM, PHMSA estimated the costs of installing a manual purging system or switching to shortened/recessed loading lines to be about \$2,250 and \$1,540, respectively, per trailer. PHMSA also estimated that 15,000 cargo tank trailers would be affected. A vendor of purging systems estimated the cost of a manual purging system to be between \$2,100 and \$2,300 per trailer, and for an automatic purging system between \$3,000 and \$4,000 per trailer.

The petroleum industry strongly opposed the NPRM and resisted any initiatives to require purging of the wet lines or incorporating design enhancements to better protect the exposed piping. Industry also contested PHMSA's cost estimates and the number of cargo tank trailers that would be affected. The API and the National Tank Truck Carriers estimated the installation and retrofit costs to be far higher—as much as \$5,000 per trailer. Both also estimated that 26,000 trailers would be affected.

Sunoco, Inc., on the other hand, was very proactive and made a decision to equip all of its fleet of 120 cargo tanks with purging systems. Sunoco advised that its vehicles have been equipped for several years and that the systems have worked well. Sunoco identified two accidents in the Philadelphia area where it believes purged lines may have prevented the destruction of its trailers. Sunoco stated that the cost of a fully automated purging system is \$3,800. The cost of installing the system on a new cargo tank when it is being manufactured is nominal; however, the cost to install the purging system on a used cargo tank is estimated to be about \$4,400. Sunoco estimates the cost of an 8,000-gallon cargo tank to be \$110,000 and a 12,500-gallon cargo tank to be \$135,000. A power unit (tractor) costs about \$95,000.

In its March 5, 2005, comment letter to PHMSA on the NPRM, the NTSB stated (1) that it did not believe that reliance upon impact damage protection devices for wet lines would provide the greatest level of safety and (2) that the hazards from wet lines full of a hazardous cargo can be more effectively eliminated if the wet lines are purged of the cargo.

On June 7, 2006, PHMSA published a notice withdrawing the NPRM. PHMSA stated in the withdrawal notice that it had concluded that “further regulation would not produce the level of benefits ... originally expected and that the quantifiable benefits of proposed regulatory approaches would not justify the corresponding costs.”

On July 31, 2007, PHMSA advised the NTSB that while it would not eliminate wet lines, it developed an outreach program focused on best practices for fueling operations, maintenance procedures, and other safeguards. PHMSA also advised that it was working with industry to refine data on the wet line issue. While recognizing these increased activities, the NTSB advised PHMSA on September 4, 2008, that these actions still do not address the need to eliminate wet lines and that they did not satisfy the NTSB's 1998 recommendation.

On April 1, 2009, PHMSA advised the NTSB that prohibiting the transport of hazardous materials in wet lines was not justified because of cost factors and a decrease in reported

incidents. Instead, it stated that it has developed a strategy focusing on avoiding incidents and voluntary actions to limit safety risks.

#### Action Needed

The risk of wet lines has been recognized for 30 years. Because the risk is primarily from cargo tank vehicles making gasoline deliveries at neighborhood service stations and convenience stores, the exposure of the public is not acceptable. For this reason, PHMSA needs to prohibit the carrying of hazardous materials in external piping of cargo tanks, such as wet lines, that may be vulnerable to failure in an accident. Further, PHMSA alluded to the underreporting of accident data in its NPRM, and the NTSB believes that PHMSA could take action to improve the accuracy and completeness of the data.

#### Safety Recommendation

--to the U.S. Department of Transportation:

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. (H-98-27); Current classification: Open—Acceptable Response

### **Loading and Unloading of Hazardous Materials from Railroad Tank Cars and Highway Cargo Tanks**

#### Issues

The lack of adequate safety requirements and oversight for loading and unloading of hazardous materials from railroad tank cars and highway cargo tanks.

#### Background

The NTSB investigated eight accidents involving the loading or unloading of highway cargo tanks or railroad tank cars between June 1998 and August 2003.

On November 19, 1998, at an industrial facility in Louisville, Kentucky, a cargo tank truck containing a corrosive liquid mixture was offloaded into a storage tank containing an incompatible chemical, causing a chemical reaction that resulted in 7 worker injuries and the evacuation of 2,400 persons. A plant employee inadvertently attached the transfer hose to the wrong pipe fitting at a manifold on which confusing labeling was affixed. Less than 7 months later, a similar accident occurred on June 4, 1999, at a tannery in Whitehall, Michigan. When a cargo tank truck containing sodium hydrosulfide solution arrived at the facility, the tannery's shift supervisor failed to verify the chemical that was to be delivered. The supervisor directed the truck driver to offload his cargo into a tank that contained an incompatible hazardous material. The resulting chemical reaction generated hydrogen sulfide, a poisonous gas that killed the truck driver. The NTSB cited as contributing causes to both accidents the failure of the DOT to establish, and oversee compliance with, adequate safety requirements for unloading hazardous materials from highway cargo tanks.

The NTSB also investigated a number of accidents in which it addressed the inadequacy of Federal oversight of loading and unloading safety procedures for railroad tank cars. On July 14, 2001, at a chemical plant in Riverview, Michigan, a pipe that was attached to a fitting on the unloading line attached to a railroad tank car fractured and separated, which caused the release of methyl mercaptan, a poisonous and flammable gas. The methyl mercaptan ignited, and the fire damaged cargo transfer hoses on an adjacent tank car that resulted in the release of chlorine, a poisonous gas. Three plant employees were killed, and several others were injured. About 2,000 residents were also evacuated from their homes. The NTSB determined that this accident resulted from inadequate inspection and maintenance of cargo transfer equipment and inadequate Federal oversight of unloading operations involving hazardous materials.

On September 13, 2002, a 24,000-gallon railroad tank car containing a hazardous waste mixture catastrophically ruptured at a chemical facility in Freeport, Texas. The tank rupture occurred while the car was being steam-heated to permit transfer of the contents. As a result, 28 people were injured. The NTSB determined that the tank car was over pressurized by excessive heating, which caused a runaway chemical reaction; the NTSB also cited unloading procedures as a safety issue.

#### Action to Date

In an NPRM issued on June 14, 2001, PHMSA stated that loading and unloading bulk liquid containers such as tank cars and highway cargo tanks generally were not transportation activities and, therefore, were not subject to the *Hazardous Materials Regulations*. The NPRM was strongly opposed by many carriers and shippers of hazardous materials who were concerned that the NPRM, if implemented, would replace a national system of uniform and consistent regulations with differing regional standards established by local jurisdictions, the U.S. Environmental Protection Agency, and the Occupational Safety and Health Administration (OSHA).

The NTSB also opposed the NPRM. In its October 29, 2001, comments to the NPRM, the NTSB stated its belief that the DOT had both the statutory mandate and the authority to regulate loading and unloading operations. The NTSB also stated that the proposed rules "may result in the elimination of effective Federal oversight" of these operations and that "DOT should strengthen its oversight rather than ignore these issues." In the fall of 2002, OSHA notified the NTSB of its willingness to work with the DOT to review the adequacy of current requirements and to identify any gaps or inconsistencies that may exist and endanger the safety of workers. PHMSA published the final rules on October 30, 2003, with virtually no changes from the NPRM.

In the fall of 2006, the then current PHMSA administrator reexamined the issue and directed PHMSA staff to establish a working group of government and industry representatives to develop recommended practices for loading and unloading of these bulk liquid tanks. On January 4, 2008, PHMSA published a notice requesting comments on the "proposed recommended practices" that had been developed. PHMSA stated in the notice that between 2004 and 2006, bulk loading and unloading operations accounted for 27 percent of all serious unintentional release accidents.

Although the 2008 proposed practices are comprehensive, the NTSB is still concerned that the practices would not be enforceable because they are not required. No further action has been taken since the publication of recommended practices in January 2008.

Action Needed

PHMSA needs to complete rulemaking that either incorporates its recommended practices directly into the *Hazardous Materials Regulations* or incorporates them by reference into the regulations. By codifying the recommended practices, PHMSA would have regulatory and enforcement authority over the loading and unloading operations as a function of transportation, while OSHA could continue to address personal protection requirements, emergency shutdown measures, and other actions needed to protect workers.

Safety Recommendations

--to the Pipeline and Hazardous Materials Safety Administration:

In cooperation with the Occupational Safety and Health 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. (R-04-10); Current classification: Open—Unacceptable Response

--to the U.S. Department of Transportation:

Develop, with the assistance of the Environmental Protection Agency and Occupational Safety and Health Administration, 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. (I-02-1); Current classification: Open—Unacceptable Response

Implement, after the adoption of safety requirements developed in response to Safety Recommendation I-02-1, an oversight program to ensure compliance with these requirements. (I-02-02); Current classification: Open—Unacceptable Response

--to the Occupational Safety and Health Administration:

Assist the U.S. Department of Transportation in developing safety requirements that apply to the loading and unloading of railroad tank cars, highway cargo tanks, and other bulk containers that address personal protection requirements, emergency shutdown measures, and the inspection and maintenance of cargo transfer equipment. (I-02-3); Current classification: Open—Acceptable Response

**Other Issues**Improvements in Railroad Tank Cars Transporting Hazardous MaterialsIssues

An inadequate understanding of forces acting on tank cars during accident conditions and inadequate tank car design and material standards for tank car construction.

Discussion

Four safety recommendations (R-04-4 through -7) issued to the Federal Railroad Administration (FRA) as a result of the investigation of a 2002 train derailment in Minot, North Dakota, focused on the poor performance of the steels used for the construction of tank cars involved in the accident, the need to validate the modeling of the effect of accident forces on tank cars, and the development of improved standards for steels used in the construction of tank cars transporting these hazardous materials. The safety recommendations addressed needed crashworthiness improvements in all pressure tank cars authorized for the transportation of liquefied gases, such as liquefied petroleum gas as well as poisonous-by-inhalation (PIH) materials. On August 10, 2005, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which enacted as statutory mandates the NTSB's four tank car-related safety recommendations from the Minot investigation.

On April 1, 2008, PHMSA published an NPRM that included enhanced puncture resistance standards for tank heads, new puncture standards for tank shells, and speed restrictions for trains transporting PIH materials in non-signalized territory or in tank cars not meeting the enhanced puncture resistance standards. Although the NTSB expressed its support of the overall intent of the NPRM, it noted several areas in the NPRM that could be improved. For example, the proposed standard that a tank car must be puncture resistant up to a speed of 25 mph does not represent a standard for ensuring safety in 50-mph derailments. The proposed rule defines a puncture-resistance standard for tank cars, but it does not address the spectrum of loads from a variety of impacts that have occurred in derailments, such as crushing. The NTSB believes that more technically rigorous models should be developed to identify forces acting on tank cars during derailments and validated to address these concerns. Lastly, the NPRM did not include a standard for the fracture toughness of steels as recommended.

PHMSA published a final rule on January 13, 2009, that did not accept any of the NTSB's suggestions to improve the NPRM. Further, according to PHMSA, an overwhelming number of industry commenters expressed the view that the tank car industry lacks the technological and engineering ability to manufacture tank cars meeting the proposed standards. Based on these comments, the FRA and PHMSA adopted interim standards for tank cars used to transport PIH materials. Under the interim standards, heavier and thicker tank cars having higher design pressures will be required for PIH materials, such as chlorine and anhydrous ammonia.

Action Needed

PHMSA and the FRA need to develop improved performance standards for all pressure tank cars and not only for those used in the transportation of PIH materials. The performance

standards need to be based on more advanced modeling of the variety of forces acting on a tank car during accidents. A coordinated and cooperative effort among the FRA, PHMSA, railroads, tank car manufacturers and owners, and hazardous materials manufacturers and shippers is also needed to develop and implement performance standards for pressure tank cars.

Placement of Tank Cars Transporting High-Risk Materials in Trains

Issue

Reduction of the vulnerability of tank cars transporting PIH materials to accident damage through operational measures, such as positioning tank cars toward the rear of trains and reducing speeds.

Discussion

The collision and derailment of two freight trains in Macdona, Texas, in June 2004, resulted in the puncture of a tank car transporting chlorine, a poisonous gas. Three persons died from inhalation of the chlorine gas. Another tank car transporting chlorine was also punctured in a second railroad accident in Graniteville, South Carolina, in January 2005, causing nine fatalities. Recognizing that it would take several years before pressure tank cars with improved steels and designs would constitute a significant percentage of tank cars in service, NTSB believes the most expedient and effective means to protect the public from the release of highly poisonous gases in train accidents is for railroads to implement operational measures that will minimize the vulnerability of tank cars transporting these products. The NTSB recommended that the FRA:

Require railroads to implement operating measures, such as positioning tank cars toward the rear of trains and reducing speeds through populated areas, to minimize impact forces from accidents and reduce the vulnerability of tank cars transporting chlorine, anhydrous ammonia, and other liquefied gases designated as poisonous by inhalation. (R-05-16);  
Current classification: Open—Unacceptable Response

The FRA has strongly objected to both tank car placement and speed reduction measures to reduce the vulnerability of tank cars transporting PIH materials. The FRA has not offered any other operational measures to reduce the vulnerability of these tank cars.

Action Needed

The FRA needs to address Safety Recommendation R-05-16 by offering some positive alternatives if it believes that tank car placement and speed reductions are not viable options to reduce the vulnerability of tank cars transporting PIH materials.

Bulk Transport of Acetylene in Cylinders on Highway Trailers and Hydrogen in Tube TrailersIssues

Adequacy of the DOT *Hazardous Materials Regulations* for the protection of cylinders, valves, piping, and fittings mounted on cargo trailers, and the effectiveness of procedures for unloading acetylene from manifolded cylinders mounted on highway trailers.

Discussion

On May 1, 2001, in Ramona, Oklahoma, a tractor, in combination with a semitrailer that had horizontally-mounted, high-pressure cylinders filled with compressed hydrogen overturned, left the roadway, and traveled about 300 feet before stopping. Semitrailers with the horizontally-mounted cylinders are commonly referred to as "tube trailers." During the accident, the cylinders, valves, piping, and fittings at the rear of the semitrailer were damaged. One cylinder also fractured and was ejected from the trailer. Hydrogen was released and ignited, resulting in the evacuation of nearby residents and closure of the highway for 12 hours. The NTSB concluded that the *Hazardous Materials Regulations* did not provide sufficient and clear requirements for protecting the hydrogen cylinders, valves, piping, and other fittings.

The NTSB most recently investigated three accidents that occurred between July 25 and October 20, 2007, and involved highway trailers transporting bulk quantities of acetylene gas. Each trailer carried up to 225 cylinders that were connected by a manifold system and filled with acetylene gas. The NTSB also reviewed reports of a fourth accident that occurred on June 9, 2008.

Two of the accidents occurred as acetylene was being prepared for offloading from the cylinders mounted on the trailer. In the two remaining accidents, the trailers overturned, and acetylene cylinders were ejected from the trailers and damaged. In all four accidents, acetylene was released and ignited. The failures of the cylinders and release and ignition of acetylene raised concerns about the accident protection provided by configuration of the cylinders on the trailers and the safety standards and procedures applicable to the unloading of the manifolded cylinders.

In its reports of the Ramona, Oklahoma, accident and of the four accidents involving the acetylene cylinder trailers, the NTSB issued three safety recommendations (H-02-23 and -24 and H-09-01) to PHMSA to require that the cylinders on tube trailers and the manifolded acetylene cylinders are protected from roadway impact and are securely mounted to the trailer and that valves, fittings, and piping to the cylinders on both types of trailers are also protected from impact damage. In its report of the accidents involving the acetylene cylinder trailers, the NTSB also issued a safety recommendation (H-09-2) to PHMSA to require fail-safe equipment on these trailers that ensures that operators can perform unloading procedures only when done correctly and in proper sequence.

PHMSA worked with the Compressed Gas Association (CGA) to develop standards that address the 2002 recommendations that were issued following the Ramona accident, and that would be incorporated by reference into the *Hazardous Materials Regulations*. In April 2007, PHMSA published an NPRM that proposed to incorporate the requirements of a newly

completed CGA technical bulletin regarding design considerations for tube trailers. In its June 7, 2007, comments on the NPRM, the NTSB stated that although the CGA technical bulletin addressed Safety Recommendation H-02-23 regarding the protection of valves, fittings, and piping on tube trailers, it did not satisfy Safety Recommendation H-02-24 regarding the protection of the cylinders from impact. PHMSA published a final rule on April 9, 2009, that incorporated the CGA technical bulletin by referencing it in the *Hazardous Materials Regulations*. There was no change in the technical bulletin to address protection of the cylinders nor did PHMSA add a stand-alone amendment to regulations requiring impact protection of cylinders.

The recommendations involving the acetylene cylinder trailers were issued on March 5, 2009. The NTSB expects to receive a response from PHMSA in the coming weeks.

Action Needed

PHMSA should undertake regulatory action to develop and implement adequate standards to protect cylinders on tube trailers and the bulk transport of acetylene cylinders. PHMSA also should develop procedures applicable to the unloading of the manifolded cylinders.

Madam Chairwoman, this concludes my prepared testimony, and I would be happy to answer questions at the appropriate time.

138

TESTIMONY  
Before

The United States House of Representatives  
Committee on Transportation and Infrastructure  
Subcommittee on Railroads, Pipelines, and Hazardous Materials

Hearing on

Reauthorization of the Department of Transportation's  
Hazardous Materials Safety Program

Presented By  
Cynthia Hilton  
Co-Facilitator

Interested Parties for Hazardous Materials Transportation

1120 Nineteenth St., NW, Suite 310  
Washington, DC 20036  
202-429-9280

May 14, 2009

Chairman Brown, Representative Shuster, and other members of the Subcommittee on Railroads, Pipelines, and Hazardous Materials, I greatly appreciate the opportunity to appear before you at this hearing.

I am Cynthia Hilton, Executive Vice President of the Institute of Makers of Explosives (IME). IME represents companies that ship, receive and transport hazardous materials. IME and other hazmat-related associations participate in the Interested Parties for Hazardous Materials Transportation (Interested Parties), and I currently serve as a co-facilitator of this group. The mission of the Interested Parties is to promote nationally uniform requirements for the transportation of hazardous materials that support the safety, security, and efficiency of this vital economic activity. I have been asked to present a "shipper's" view on the reauthorization of the Hazardous Materials Transportation Act (HMTA).

#### Who We Are

Everyone in our society benefits from hazardous materials. From medicines to household cleaners and batteries to biofuels, we manufacture and distribute materials and products to make our lives better – healthier, more productive and enjoyable. Our products make possible the clothes we wear, the homes we live in, the food we eat, the arts we enjoy, and the means to travel to and from destinations near and far. Our industries provide jobs and we contribute positively to the U.S. balance of trade.

More than 3 billion tons of regulated hazardous materials—including explosive, toxic, corrosive, flammable, and radioactive materials—are transported in this country each year. Over 800,000 shipments of hazardous materials move daily by plane, train, truck, or vessel in packages with quantities ranging from several ounces to thousands of gallons. These shipments touch every community domestically and move worldwide, frequently through densely populated or sensitive areas where the consequences of an incident could be loss of life or serious environmental damage. Yet, even as the volumes of hazardous materials shipped have increased, the transportation of hazardous materials is accomplished with a remarkable record of safety.

Shipper participants within the Interested Parties represent companies engaged in the manufacture and distribution of hazardous materials in every hazard class and division, and into all manner of markets. However, it is important to recognize that the shipper community is extremely diverse. While it is more likely that carriers are capable of transporting freight of all kinds, the shipper community is much more specialized. For example, the nuclear industry is different from the compressed gas industry, is different from the chemical industry, is different from the petroleum industry, is different from the explosives industry. The companies we represent will also differ by the customers they serve. For example, some may manufacture for other shippers and some for the consumer market. Some may service a locality and others the world. We range from multi-national corporations to small businesses.

#### Managing Risk

The historic purpose of the HMTA and implementing regulations has been to protect against harm when hazardous materials are transported. DOT, through PHMSA, administers a comprehensive regulatory program. Each person who offers hazardous materials for transportation in commerce must comply with all applicable requirements of DOT regulations, or a special permit, approval or registration issued under the regulations. The practical effect of these regulations is that hazardous materials may not be transported by any mode without permission. This blanket prohibition against transportation, unless

there is a specific DOT authorization for that transportation, necessitates a close, symbiotic relationship between the agency and the regulated community.

This relationship is anchored on the principles articulated by Congress that “the movement of hazardous materials in commerce is necessary to maintain economic vitality and meet consumer demands, and [that it] must be conducted in a safe, secure, an efficient manner.”<sup>1</sup> The HMTA exists to facilitate, not frustrate, the commerce of hazardous materials by balancing the demands of safety, security, and efficiency.

The success of this approach is measured by the relatively low number of serious hazmat incidents that occur annually. Accidental death from transporting hazardous materials is less than that from floods, tornados or lightening. Yet, some find any incident, or the possibility of any incident, unacceptable. Though some advocate it, the goal of the HMTA is not “zero risk.” Any activity, including the transportation of hazardous materials, involves risk. The only way to achieve zero risk is to not engage in the activity. While we seek to learn from incidents and strive to be more vigilant, the goal is to manage risk.

This risk-based approach relies on time-tested performance standards which can accommodate the innumerable variations in hazmat shipments. Not every quantity, form or characteristic of hazardous material warrants the highest level of regulatory control. Under its statutory authority, PHMSA considers what “amount and form may pose an unreasonable risk to health and safety or property.”<sup>2</sup>

Additionally, these materials are transported by all modes, and any one shipment often will travel by more than one mode. The intermodal nature of hazardous materials transportation demands a “One DOT” approach to hazmat regulation. If hazmat regulation is not modally harmonized, shipments will be frustrated. Such an intermodal approach also allows for a system-wide assessment of risk. Care must be taken to ensure that the tightening of regulation on one mode of transportation, ostensibly to reduce risk, does not just shift risk to other, potentially more, vulnerable modes.

Finally, the HMTA provides authority to manage risk of commercial shipments of hazardous materials throughout the transportation stream, including loading, unloading and storage incidental to the movement, by ensuring that shipments are not frustrated at jurisdictional boundaries, whether intrastate, interstate or foreign. From time to time, governments attempt to ban or otherwise limit hazardous materials shipments from their sphere of control. The NIMBY syndrome may appear to reduce risk, but it does nothing more than shift risk to other jurisdictions that may not be as prepared to handle the risk should an incident occur. The best way to share the risks and benefits of hazardous materials transportation is to ensure that the rules governing their movement are harmonized nationally and worldwide.

#### Moving Forward

As the governing authority over hazardous materials transportation, the HMTA and its implementing regulations are of critical importance to the regulated industry and to the economy at large. The Interested Parties have historically submitted suggestions for improvements to the HMTA each time Congress considers its reauthorization. These improvements can be substantive or editorial. For the

<sup>1</sup> P.L. 109-59, Sec. 7101(a)(2).

<sup>2</sup> 49 U.S.C. 5103(a).

record, I am submitting our recommendations in a red-line version of 49 U.S.C. Chapter 51 and a section-by-section description of changes the Interested Parties support. The remainder of my comments will discuss those provisions of particular interest to the shipper community.

Strengthen Regulatory Uniformity to Preserve and Enhance Transportation Safety and Security

Given the safety and security issues surrounding the transportation of hazardous materials, a strong federal presence is required to ensure uniformity of regulations that protect the public, facilitate compliance, and provide for the efficient movement of these essential materials in intrastate, interstate, and foreign commerce. To this end, Congress explicitly provided preemptive authority to DOT. We recommend that these important purposes be articulated in a “purposes” subsection to §5125.

Congress should continue to strengthen DOT’s ability to ensure uniform regulations covering the transportation of hazardous materials by allowing DOT to use an “internal consistency test” in evaluating the burden on commerce. This standard was articulated by the Supreme Court in Healy v. Beer Institute, Inc.,<sup>3</sup> and would require DOT to evaluate “the practical effect of [a state] statute . . . not only by considering the consequences of the statute itself, but also by considering how the challenged statute may interact with the legitimate regulatory regimes of other states, and what effect would arise if not one, but many or every, State adopted similar legislation.” This standard is already available to DOT when considering waivers for preemption. DOT’s authority should be clarified to ensure that DOT is authorized to consider such burdens on commerce when evaluating applications for preemption determinations.

The proliferation of non-federal requirements does not necessarily increase safety or security of hazardous materials shipments. Instead, non-uniform regulations often cause unnecessary delay, detention, and other consequences to these essential shipments that increase or shift risk. Regulatory confusion complicates worker training, may increase instances of non-compliance, or drive commerce underground. Safety and security benefits accrue to all citizens from the seamless movement of hazardous materials throughout the transportation system.

Eliminate Regulatory Gaps and Overlaps

To work, the system of close regulation envisioned by the HMTA must be comprehensive. Regulatory gaps introduce potentially undue risk and overlaps impose unnecessary burden. The Interested Parties’ recommendations address both situations.

- Closing Gaps

The terms “load”, “unload” and “storage” are used 12 times in the HMTA. In §5107, Congress directs DOT to prescribe, by regulation, requirements for training that a hazmat employer must give its hazmat employees on, among other things, the safe loading, unloading, and handling of hazardous material during or incidental to transporting the materials. This requirement suggests that regulation exists in these areas so that hazmat employers would know to what requirements they must train. The definitions in §5102 explain that a “hazmat employee” includes individuals whose work may include loading or unloading hazardous materials, that a “hazmat employer” can be a person who transports or ships hazardous materials in commerce, and that “transport” or “transportation” is the movement of

<sup>3</sup> 491 U.S. 324 (1989).

property and loading, unloading or storage incidental to the movement. Yet, the listing of persons that DOT is required to regulate does not include those who load, unload or handle shipments of hazardous materials. We believe that Congress should rectify this oversight by specifically including reference to these critical activities under DOT's general regulatory authority in §5103.

As noted, the definition of "transportation" includes loading, unloading and related incidental storage. However, the hazardous materials regulations do not address unloading or incidental storage that may take place in the absence of a carrier. These regulatory gaps are most apparent when bulk commodities are transported because the unloading and incidental storage of these transport packagings are typically accomplished by non-carrier personnel.

After a number of serious incidents, both the National Transportation Safety Board and the Chemical Safety Board brought concerns and recommendations to DOT for enhanced safety standards in these areas. These safety authorities recognized that individual voluntary attempts to fill the gaps in safety requirements, while commendable, are an inadequate solution. We agree. Despite various industry-recommended safety practices for these hazmat functions, the Interested Parties does not represent the universe of entities engaged in these operations and, even if we did, we have no authority to enforce compliance.

Subsequently, DOT analysis of its data has revealed that 27 percent of serious hazmat incidents occur during loading/unloading of bulk cargoes. Another 24 percent of serious incidents occur enroute, but are not accident-related, suggesting that some were caused, or might have been prevented, during loading. Since these unloading and incidental storage activities are currently unregulated, there may be under-reporting of incidents occurring at these times.

We recommend that DOT be directed to initiate a rulemaking to address the consequences that can result from human error and equipment failures related to loading, unloading, and storage of bulk packagings with capacities exceeding 3000 Liters when these activities are performed at fixed facilities. Not clarifying that PHMSA has authority to regulate loading, unloading and handling of hazardous materials in transportation, in the face of other statutory functional area clarifications to the contrary, runs the risk that other non-federal entities may feel that they are at liberty to regulate in these areas. Non-uniform regulations lead to increased incidents of non-compliance and associated fines for failure to comply with unique regulatory requirements that vary from state to state or even jurisdiction to jurisdiction.

- Addressing Overlaps

Congress granted authority to the Occupational Safety and Health Administration (OSHA) to regulate employee health and safety except in those instances when another federal agency exercised its authority over the same subject matter. This limitation on OSHA's authority is designed to ensure that important areas of federal regulatory authority are exercised, while avoiding duplicative or conflicting regulatory requirements. The so-called "reverse preemption" limitation to OSHA's authority applies to every federal statute except two, and one is the HMTA. In 1990, a drafting error created duplicative authority over DOT hazardous materials regulations concerning the "handling" of hazardous materials. In fact, OSHA now views its statutory authority "to include working conditions during the actual movement of hazardous material in commerce, as well as during the preparation of hazardous materials

prior to movement, and the loading, unloading, and temporary storage of hazardous material incidental to movement.”<sup>4</sup>

Regrettably, OSHA’s hazmat transportation rules are woefully out of date. It is unfortunate that OSHA has not rectified these regulatory deficiencies in the intervening years. As it stands, the regulated community is exposed to a number of out-dated and conflicting hazmat safety standards. If these out-dated rules from the last century were enforced, they would immediately put workers and the public in harm’s way. By way of contrast, DOT is constantly refreshing the hazardous materials regulations to cover new products and evolving international requirements. If Congress continues to expect that OSHA will share this jurisdiction spectrum, OSHA would soon find its regulatory agenda driven by DOT as it attempted to keep pace.

Another drawback stemming from OSHA’s duplicative regulatory authority results from the fact that OSHA does not have the authority to ensure uniform regulations as does DOT. The erosion of a uniform regulatory framework is exacerbated by the fact that the Occupational Safety and Health Act allows differing state requirements. Non-uniform regulations can frustrate shipments or shift risk to other jurisdictions. As noted, risk is increased because the more time and distance hazardous materials spend in transportation, the more likely it is that they will be involved in an incident.

While DOT has attempted to address these jurisdictional issues through its regulatory authority, its efforts have failed. OSHA does not recognize DOT’s definition of its authority, and DOT’s definition has created regulatory gaps, as well as overlaps, between existing US Environmental Protection Agency and Department of Justice requirements. At the same time, our recommendations recognize that these agencies have regulatory responsibilities that should be complementary. In order to harmonize requirements, minimize regulatory gaps and duplications, and promote jurisdictional certainty, consistency, and clarity, we support language requiring DOT to consult with all other federal agencies who have fixed site requirements when DOT seeks to establish requirements for transportation activities performed at fixed facilities.

We strongly urge that the statute be revised to ensure a seamless, non-conflicting regulatory standard for hazmat transportation safety.

#### Address Undeclared Hazardous Materials

The 2005 amendments provided DOT new inspection and investigation authority. DOT inspectors may open and/or remove from transportation certain packagings if they have an “objectively reasonable and articulable belief” that the packaging contains a hazardous material. Under certain circumstances, DOT may order the removal of a package from transportation for additional scrutiny. In such cases, the inspector must document his/her reasoning. In addition, inspectors are authorized to gather information about the packaging from shippers, carriers, and others, and may order the shipper to move the packaging to a safe location. The authority also contains provisions relating to the resumption of transportation for a packaging deemed to be safe, the issuance of emergency orders for unsafe conditions or practices, and the development of regulations. The Interested Parties recommend several changes to this authority.

---

<sup>4</sup> 71 FR 18798.

Growing awareness of serious safety issues from “undeclared” packages (i.e., those suspected of containing hazmat but not otherwise identified) was the basis for the new inspection and investigation authority. The need was based on the Valujet incident, which involved a totally undeclared package. The statute states that a DOT inspector may open a package if he/she has a reasonable and articulable belief that the package may contain a hazardous material. No new authority to open or test materials in declared packages was discussed or examined. Therefore, the Interested Parties believe that an inspector's ability to search, open, or remove from transportation packages of concern should be limited to those which the inspector believes contain “undeclared” hazardous materials. In addition, package opening activity should take place “at a properly equipped facility designated by the Secretary for this purpose” in order to protect public health and safety.

The Interested Parties are seeking clarification to ensure that DOT will notify the carrier and shipper, but not other parties related to the package (e.g., packaging manufacturer), that a package has been removed from transportation. We see no safety or regulatory benefit from notifying a packaging manufacturer, tester or “other person responsible for the package” in addition to the shipper and carrier.

The Interested Parties would add a new subsection on indemnification. DOT should indemnify and hold harmless persons who are injured by a release from a package that is opened or otherwise handled under this section, or whose packages were damaged or destroyed by inspectors but found to be in regulatory compliance.

Finally, we recommend that the requirement for implementing rules be updated to reflect the rulemaking DOT has initiated to implement this authority, and to ensure that the final rule addresses critical issues concerning delay in the transportation of time-sensitive materials (e.g., medical products), training and equipment for inspectors, restoration or disposal of an opened package for transportation, and cost and damage factors. The safety of the public, those directly engaged in hazmat transportation, and government enforcement officials depends on the appropriate resolution of that rulemaking.

#### Clarify a HazMat Employer's Responsibility to Train HazMat Employees

An issue leading up to the 2005 HMTA amendments was concern over the training of non-employees who perform regulated hazmat functions for a hazmat employer. One of the proposals put forth to address the concern was to expand the definition of “hazmat employee” and “hazmat employer” to encompass those individuals who are “used” but not “employed.” The intent of the definitional change was to ensure that the non-employees were appropriately trained; the result of the definitional change would cause hazmat employers to train non-employees.

No one disputes that the training of hazmat employees is critically important, as incident statistics of human error and civil penalty standards attest. However, every “hazmat employee” has an “employer.” Hazmat employers include contractors and other third parties whose hazmat employees provide services to shippers, carriers, and packaging manufacturers. In recognition of this fact, the “or used” language was stricken from the definition of “hazmat employee.” However, in what may have been an oversight, the companion “or uses” language was retained in the definition of “hazmat employer.”<sup>5</sup>

---

<sup>5</sup> 49 U.S.C. 5102(4)(A)(i)(I).

The definition of "hazmat employer" should be restored to its original text to clarify the person responsible for training hazmat employees. Each hazmat employer is responsible for training its hazmat employees, whether employed on a full time, part time or temporary basis. This definition and the proposed change to it do not affect the scope of DOT's existing statutory inspection and compliance jurisdiction over every individual who performs a hazmat employee function.

This clarification of training responsibilities will improve accountability of cargo handlers and third parties that provide services to shippers, carriers, and companies involved in the packaging and loading of hazardous materials in transportation. Improved accountability and clarification will incentivize the responsible parties to ensure that adequate training is conducted, appropriate to the employee's job duties. Improvements in function-specific training will reduce violations of hazmat regulations and those incidents resulting from improperly training employees.

As industry expands reliance on outsourcing specialized functions, the number of third-party entities specializing in assisting companies in the preparation and transport of hazardous materials may also increase. The value of outsourcing a technical function is substantially reduced unless the supplier is clearly responsible for training its own employees to comply with applicable regulations.

#### PHMSA's Role

Over 100 years ago, Congress charged the Federal government to reduce the dangers associated with the transportation of explosives and other dangerous articles. Thus began the Federal hazardous materials safety program. The establishment of DOT brought oversight of hazardous materials transportation under one authority. Historically, this important responsibility within DOT has been assigned to PHMSA and its predecessors. Given the multi-modal, multi-jurisdictional reach of hazardous materials transportation, regulatory oversight cannot be effectively assigned to any modal administration. Congress most recently affirmed this organizational imperative with the enactment of the Norman Y. Mineta Research and Special Programs Improvement Act.<sup>6</sup>

Lately, challenges have been raised about PHMSA's ability to meet its regulatory and enforcement obligations. These challenges have disrupted the timely processing of regulatory and other policy actions. While industry may agree that aspects of the program could be improved, we have not seen any shortfall that could not be remedied by more resources. At the same time, PHMSA's hazardous materials technical expertise is unmatched and recognized worldwide. The close regulatory control the agency must exercise over hazardous materials shipments has made it the most proficient and prolific of DOT regulatory agencies. To the extent PHMSA's harmonized approach to regulation of hazardous materials is undermined in deference to one specific mode or another, risk will be shifted and shipments will be frustrated. We would welcome a reaffirmation in this reauthorization of Congress' longstanding commitment to the intermodal and international "One DOT" role PHMSA carries out to ensure the safe, secure and efficient transport of hazardous materials throughout the transportation network at home and abroad.

#### Conclusion

Our communities, the public and workers engaged in hazardous materials commerce count on the safety and security of these shipments. Industry supports the closely regulated environment envisioned

---

<sup>6</sup> P.L. 108-426.

under the HMTA because it has time and again proven to be the most efficient way to move hazardous materials safely and securely.

I would be glad to answer any questions.



**Reauthorization of the  
U.S. Department of Transportation's  
Hazardous Materials Safety Program**

**Written Statement of**

**Chief Jeffrey D. Johnson, EFO, CFO  
1<sup>st</sup> Vice President**

*presented to the*

**SUBCOMMITTEE ON RAILROADS,  
PIPELINES, AND HAZARDOUS MATERIALS**

**OF THE**

**COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE**

**U.S. House of Representatives**

May 14, 2009

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS  
4025 FAIR RIDGE DRIVE • FAIRFAX, VA 22033-2868  
(703) 273-0911 • FAX (703) 273-9363

Good afternoon, Chairwoman Brown, Ranking Member Shuster and distinguished members of the subcommittee. I am Jeff Johnson, First Vice President of the International Association of Fire Chiefs (IAFC), and fire chief of Tualatin Valley Fire and Rescue, which is located in Beaverton, Oregon.

The IAFC represents the leadership of over 1.1 million firefighters and emergency responders. IAFC members are the world's leading experts in firefighting, emergency medical services, terrorism response, hazardous materials spills, natural disasters, search and rescue, and public safety policy. Since 1873, the IAFC has provided a forum for its members to exchange ideas and uncover the latest products and services available to first responders.

#### **The Fire and Emergency Service Community**

America's fire and emergency services are the only organized group of American citizens that is locally situated, staffed, trained, and equipped to respond to all types of emergencies. There are approximately 1.1 million men and women in the fire and emergency services – approximately 300,000 career firefighters and 800,000 volunteer firefighters – serving in over 30,000 fire departments around the country. They are trained to respond to all hazards ranging from earthquakes, hurricanes, tornadoes and floods, to acts of terrorism, hazardous materials incidents, technical rescues, fires and medical emergencies.

The fire service protects America's critical infrastructure – the electrical grid, interstate highways, railroads, pipelines, petroleum and chemical facilities – and is, in fact, even considered part of the critical infrastructure. The fire service protects federal buildings, including military installations, and interstate commerce. No passenger airliner takes off from a runway that is not protected by a fire department.

#### **New Challenges in Hazardous Materials Transportation**

The transportation of hazardous materials is an integral part of the U.S. economy. According to the U.S. Department of Transportation (DOT)'s Pipeline and Hazardous Materials Safety Administration (PHMSA), there are close to a million daily shipments of hazardous materials. In most cases, these hazardous materials reach their destination safely. However, there are approximately 250,000 incidents each year. When these incidents occur, the local fire and emergency services will respond to protect the public.

At the dawn of the new century, the fire and emergency services face a number of new challenges in the field of hazardous materials. Due to both federal legislation and new technologies, a number of alternative fuels power our nation's economy. In the past two years, ethanol production and use has skyrocketed and fuel-grade ethanol is the number-one freight rail commodity, by volume, in the country. Shippers are sending various types of ethanol (fuel-grade, beverage-grade, and various flex-fuel blends) by pipeline, rail, barge, and truck through America's cities and communities. In addition, more than 250 million gallons of biodiesel are being produced annually in the U.S., and these are being shipped at different concentrations. Because of the different chemical properties of these alternative fuels, fire departments cannot use the same tactics and equipment that

they used for traditional petroleum-based fuels. Instead, fire departments must be equipped with the right equipment, including alcohol-resistant foams, and tactics to respond to incidents involving these alternative fuels.

The terrorist attacks on September 11, 2001, raised the specter of terrorism as a new threat for the fire and emergency services and their hazmat teams. Local first responders will be the first on scene at a chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) incident. While a CBRNE event is basically a "hazmat incident with attitude," it involves a larger affected area, more casualties, and longer recovery duration than a more conventional hazmat incident. The fire and emergency services have spent the past eight years preparing themselves for a future incident through improved training and equipment. However, these preparations demand ever increasing amounts of time and resources, and the development of new skills.

New technology can be both a help to deal with these challenges, and a challenge in its own right. The Internet offers a wide variety of resources for hazmat teams to access information, share information about new trends in hazmat response, and report lessons learned from major incidents. For example, training can be downloaded from the web and shared at the fire station with an ease that has been hitherto unknown. However, technology also can create challenges. Information found on the Internet has to be validated and come from a trusted source. New equipment can be expensive and require specialized training.

In order to deal with these new challenges, the IAFC is working with its partners in the federal government, including the PHMSA, state and local agencies, and the private sector to develop solutions using new and innovative training methodologies and harnessing new methods of getting information out to the nation's fire and emergency services. By continuing to work in a collaborative manner, we can develop solutions that will ensure the safety of the American public.

### **Training**

The IAFC is taking the lead on educating the fire service on how to respond to incidents involving ethanol-blended and biodiesel fuels. In 2006, the IAFC joined with the Renewable Fuels Association, the International Liquid Terminals Association, Ansul, Williams Fire and Hazard Control, and Industrial Fire World to create the Ethanol Emergency Response Coalition (EERC). Using funding from the PHMSA and the U.S. Fire Administration, the IAFC worked with the EERC to develop training material and videos to educate the fire service about the specific type of foam and tactics needed for responding to ethanol incidents.

The IAFC also worked with the National Biodiesel Board, using a grant from the U.S. Department of Energy, to develop a training package and accompanying video for responding to biodiesel incidents. This training material is designed to help local fire departments understand the process of manufacturing biodiesel fuels, and how to respond to incidents at these locations.

Besides supporting efforts to educate the fire service about these new threats, PHMSA plays an important role in making sure that the fire and emergency services have basic hazmat response capabilities through its Hazardous Materials Emergency Preparedness (HMEP) grants. Authorized at \$28.8 million each year, the HMEP grants provide financial and technical assistance and national direction and guidance for state and local hazardous materials emergency planning and training

The IAFC encourages this subcommittee to make sure that this funding is used to train first responders to the Operations Level requirements, so that they are better prepared to deal with a hazmat incident. The current federal standard for hazmat response is the Occupational Safety and Health Administration's OSHA 1910.120, "Hazardous Waste Operations and Emergency Response" standard. However, the IAFC urges this subcommittee to make sure that HMEP funding is used to train local first responders to the Operations level using both the OSHA 1910.120 standard and the National Fire Protection Association's NFPA 472, "Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents." The NFPA 472 standard was updated in 2008 to include the threat of weapons of mass destruction (WMD), while the OSHA 1910.120 standard has not had a serious update for at least 15 years. By mandating that HMEP funds be used to train firefighters to both the OSHA 1910.120 and NFPA 472 standards, the PHMSA can ensure that firefighters have the required skills to respond to all types of hazardous materials emergencies, including those that might involve CBRNE.

#### **Utilizing the Information Revolution**

The information revolution and the Internet present the fire and emergency services with an unprecedented opportunity to improve the nation's hazmat response capability. In 2007, the PHMSA partnered with the IAFC to develop the National Hazardous Materials Fusion Center. This program is designed to link hazmat teams around the country through a data and information network that will allow them to share lessons learned from their experiences. The National Hazardous Materials Fusion Center is budgeted at roughly \$2 million per year to identify the hazmat teams around the country, connect them through a web portal and data network, and allow the teams to access state-of-the-art training about new challenges in the hazmat field. One of the major strengths of the fusion center is that it will be a trusted source for information and allow local first responders, federal and state agencies, and the private sector all to come together to share experiences and information in order to learn from each other how to address new and emerging challenges in the hazmat field.

The National Hazardous Materials Fusion Center also established Regional Incident Survey Teams (RISTs) in every PHMSA region to gather information and lessons learned from major hazmat incidents. The RISTs are composed of skilled and experienced hazmat responders who will be invited by local jurisdictions to hear directly from the responders about lessons learned. Then the teams will develop best and effective practices learned from these events. Currently, the RISTs are operational in all of the PHMSA regions. Already two incidents have been surveyed and a chlorine training package was developed with the assistance of the Texas Engineering Extension Service to help ensure educational consistency.

While the National Hazardous Materials Fusion Center uses technology to better train and prepare the fire and emergency services, other forms of technology should be examined carefully before deployment. For example, there is a proposal for the PHMSA to develop a new, paperless system for communicating hazards and shipping information. This new system would harness new communications technologies and wireless data systems to document transactions, trace shipments and exchange commercial information.

The IAFC welcomes this initiative, but urges this subcommittee to make sure that it is thoroughly vetted and tested before being adopted. Basic questions still need to be answered, such as how would a fire department access this wireless information, what type of technology would be required, how much would it cost, and how reliable is it during a major fire or spill? Today, fire departments have to rely on DOT placards, shipping papers, manifests, and other shipping documents to determine what type of hazmat is present. This system is old-fashioned, but effective, especially for volunteer fire departments in rural areas that cannot afford expensive new technology. We urge the subcommittee to make sure that a paperless system is piloted in a cross-section of jurisdictions, including both major metropolitan and rural areas, before it is fully deployed. We also urge the subcommittee to continue to support the current hazmat placarding system, which effectively communicates to firefighters on scene the hazards that they may be facing.

The IAFC also supports a proposal to allow the PHMSA to regulate and set standards for emergency response consulting services. According to existing federal hazmat regulations, a carrier or person who offers hazmat for transport is required to provide a 24-hour emergency telephone number that will be answered by someone who can provide immediate emergency response information or has immediate access to this information. In many cases, these "offerors" will utilize a third-party emergency response consulting service to provide this information. These services, like CHEMTREC, are tremendous assets to firefighters that are trying to respond to a serious incident. However, there has been an increase in third-party emergency consulting services in recent years, and not all of these services are as timely and accurate as is necessary. To ensure that first responders are able to access the information that they need when they need it, the IAFC recommends that the PHMSA be authorized to have oversight authority over these third-party services and to work with emergency responders in developing performance criteria and minimum baseline standards for these services.

In addition, the IAFC recommends that shipping documents also identify the original producer and shipper of a hazardous material. With the increase in third-party logistics agents, the shipping papers for a container or tanker may only contain the third-party agent or the freight forwarder as the shipper of record. Because the third-party agent did not produce the material, the emergency contact number may not be able to provide the assistance required during an incident. The IAFC would like the PHMSA and the subcommittee to examine this issue for a solution to this problem.

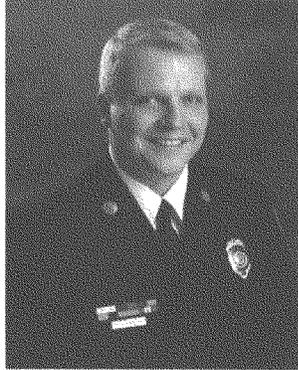
**Rerouting of Hazardous Materials Transportation**

Over the past few years, Congress has wrestled with the issue of how to route hazardous materials. The IAFC supports current Federal Railroad Administration (FRA) regulations that require railroads transporting security-sensitive hazardous materials to annually perform a comprehensive analysis that will enable it to select the safest and most secure routes. The safe and secure transportation of hazardous materials should be a clear objective of the DOT. However, the IAFC historically has had concerns with some proposals to re-route hazardous materials away from major urban areas. Realizing the importance of protecting major population centers, we would like to remind the subcommittee that most major metropolitan fire departments have experienced and well-equipped hazmat teams that are better prepared for a serious hazmat incident than volunteer fire departments in the surrounding rural areas might be. In addition, an ambitious re-routing plan creates a situation where the hazardous material in question is in transit longer, which increases the odds of an incident. In light of these concerns, we would urge the subcommittee to support the existing regulations.

In support of the current FRA regulations' focus on safe and secure hazmat transportation, the IAFC is working with both the FRA and the PHMSA to improve rural emergency response capabilities. The National Hazardous Materials Fusion Center is planning to work with communities in Massachusetts, Maryland, and Louisiana to develop and conduct rural emergency response planning surveys. These surveys will be used to assist rural fire and emergency services in developing a comprehensive strategic and tactical approach for hazardous materials preparedness, including transportation risk assessments and gap analysis. This program should improve the safety of hazardous materials that are transported through our rural communities.

**Conclusion**

In conclusion, I would like to thank the subcommittee for its focus on the PHMSA and hazardous materials transportation. As my testimony demonstrates, the IAFC considers the PHMSA a valued partner in the development of new resources and programs that harness the power of the Internet and other technology to educate and prepare the nation's firefighters and EMS personnel for the challenges that await them. On behalf of the nation's fire and EMS chiefs, I also would like to express our appreciation to this subcommittee for its continued dedication to ensuring the safety and security of the nation's hazmat transportation system.



Jeff Johnson, Fire Chief and Chief Executive Officer of Tualatin Valley Fire and Rescue (TVF&R), joined the fire district in 1989, following an 11 year fire service career in Douglas County, Oregon. Chief Johnson served as Division Chief and Assistant Chief at TVF&R prior to becoming Fire Chief in 1995.

Serving a resident population of more than 432,500 in nine cities and portions of three counties in the Portland (OR) metropolitan area, TVF&R is a fire district with approximately 500 members providing fire, EMS, and specialty rescue response along with prevention services. While under Chief Johnson's leadership, TVF&R has twice received the International Association of Fire Chiefs (IAFC)/U.S. Safety and Engineering Fire Service Excellence Award, the nation's top award for organizational excellence in the fire service. TVF&R is accredited by the Center for Public Safety

Excellence Commission on Fire Accreditation International CPSE/CFAI).

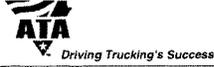
Chief Johnson is an ambassador for excellence and innovation in our service to the community. Additionally, he advocates for cooperative initiatives and other business practices that achieve efficiencies and demonstrate smart government and value for the citizens' investment. He has authored two fire service books and is a featured guest lecturer across the nation.

Chief Johnson is the Vice President of the International Association of Fire Chiefs (IAFC) and holds membership in the Metropolitan Fire Chiefs Association and the various IAFC Sections. He is the IAFC's alternate representative to the SAFECOM Executive Committee and a member of the SAFECOM Emergency Response Council. Additionally, he is a member of the USA Delegation to the Comité Technique International De Prevention Et D'Extinction Du Feu (CTIF), also known as the International Association of Fire and Rescue Services.

By gubernatorial appointment, he is the Chair of Oregon's State Interoperability Executive Council and a member of the Oregon Governor's Homeland Security Council. He is Past President of both the Western Fire Chiefs Association (WFCA) and the Oregon Fire Chiefs Association (OFCA), the Past Chair of the Oregon Governors' Fire Service Policy Council, and a charter member of Oregon's Meritorious Service committee. Locally, he is a board member for both the Washington County Office on Consolidated Emergency Management (OCEM) and for the Washington County Consolidated Communications Agency (WCCCA), the 911/dispatch center.

In the corporate environment, Chief Johnson sits on the boards of two private companies, specifically as a member of the Informed Corporation Board and as the Chairman of the Global Public Safety Solutions (GPSS) Board. He also is on the Editorial Board of FireRescue Magazine.

Chief Johnson holds a Bachelor of Science Degree in Business and Associate Degrees in Fire Science and Criminal Justice Administration. He is a graduate of the National Fire Academy's Executive Fire Officer (EFO) Program and achieved the CPSE Chief Fire Officer (CFO) Designation. During his leisure time, Jeff enjoys spending time with his wife Kay and their two children. An avid outdoorsman and student of Oregon history, he enjoys camping, fishing and motorcycling in Oregon's back country.



**American Trucking Associations**  
950 N. Glebe Road, Suite 200, Arlington, VA 22203  
(703) 838-1910

**Before the  
United States House of Representatives  
Committee on Transportation and Infrastructure's  
Subcommittee on Railroads, Pipelines and Hazardous Materials**

**Statement of Robert Petrancosta  
on behalf of the  
American Trucking Associations, Inc. (ATA)**

***Reauthorization of the Department of Transportation's  
Hazardous Materials Safety Program***

**May 14, 2009**

Mr. Chairman and Members of the Committee:

Thank you, Mr. Chairman and members of the House Transportation and Infrastructure Subcommittee on Railroads, Pipelines and Hazardous Materials for the opportunity to testify on the reauthorization of the Department of Transportation's (DOT) hazardous materials safety program. My name is Robert Petrancosta, and I am the Vice President of Safety for Con-way Freight, a trucking company headquartered in Ann Arbor, Michigan. Con-way is a less-than-truckload motor carrier that operates more than 8,500 trucks and employs over 17,000 individuals. Con-way transports over 56,000 shipments each day and approximately 2,000 of these shipments are regulated hazardous materials.

Today, I appear before you representing not just my company, but also the American Trucking Associations (ATA). ATA is the national trade association of the trucking industry and through its affiliated state trucking associations, affiliated conferences and other organizations, ATA represents more than 37,000 trucking companies throughout the United States. I am proud to serve as a member of ATA's Safety Policy Committee and the past Chairman of ATA's Hazardous Materials Policy Committee.

The trucking industry is the backbone of this nation's economy accounting for more than 80% of the nation's freight bill with nearly 9 million Americans working in trucking-related jobs. The trucking industry delivers virtually all of the consumer goods in the United States and the lion's share of essential hazardous materials, such as pharmaceuticals to treat the ill, chemicals to purify water, fuel to power our cars and heat our homes, pesticides and fertilizers to help feed the world, and military supplies to

protect our troops. These hazardous materials are essential to support our quality of life and their safe and efficient transportation is critical to this Nation's economic well being.

The safety and security record for the transportation of hazardous materials is impressive. Each day there are approximately 1,000,000 shipments of hazardous materials in the United States.<sup>1</sup> 94% of these shipments move by truck.<sup>2</sup> The rate of serious incidents involving the transportation of hazardous materials by motor carrier is just 0.0001%, and the percentage of incidents involving injuries is 0.00002% or two one-hundred thousandths of one percent.<sup>3</sup>

We support the Pipeline and Hazardous Materials Safety Administration's (PHMSA) leadership in regulating hazardous materials transportation. PHMSA has implemented an enterprise approach to hazardous materials regulation and communicates on a regular basis with key stakeholders, including safety advocates, emergency responders, carriers and shippers. The agency has embraced a risk-based, data driven approach to balance the need to ensure the safe and secure transportation of hazardous materials with the need to ensure that these vital commodities move efficiently in commerce. PHMSA also has earned the respect of the international community and a PHMSA staff member currently serves as the Chairman of the United Nations Subcommittee on the Transportation of Dangerous Goods. Congress should ensure that PHMSA maintains its status as the lead regulatory agency for hazardous materials transportation both at home and abroad.

While the existing statutory framework and regulations governing hazardous materials transportation have a proven track record, I appear before you today to highlight specific recommendations to further improve the safe, secure and efficient transportation of hazardous materials.

The remainder of my testimony highlights six key issues for Congress to address as it considers the reauthorization of the federal hazardous materials transportation law:

- Eliminating duplicative and redundant security background checks;
- Improving state hazmat permitting systems;
- Ensuring equitable enforcement of the hazmat regulations;
- Enhancing safety by increasing DOT's preemption authority; and
- Resolving jurisdictional issues concerning the Occupational Safety and Health Administration (OSHA) and DOT's regulation of hazmat handling; and
- Regulating the transportation of flammable materials in cargo tank wetlines.

---

<sup>1</sup> See Hazardous Materials Cooperative Research Act of 2009, H.R. 1013, 111<sup>th</sup> Congress (February 12, 2009).

<sup>2</sup> See Research and Special Programs Administration, Office of Hazardous Materials Safety, *Hazardous Materials Shipments* (October 1998).

<sup>3</sup> See U.S. Department of Transportation, Hazardous Materials Information System (May 1, 2009). Note many "serious incidents" do not involve injuries, as highway closures and certain releases of hazardous materials are classified as "serious incidents" even though no one is injured.

### I. Redundant Background Checks

Duplicative background checks and redundant credentials have caused a dramatic reduction in the number of qualified drivers that are available to transport hazardous materials. Prior to the initiation of the Transportation Security Administration's (TSA) background check program, there were more than 2.7 million drivers that had obtained Hazardous Materials Endorsements (HME) to their Commercial Drivers Licenses (CDL).<sup>4</sup> We estimate that the number of HME holders will fall to 1.6 million by the Spring of 2010 – the end of the first 5-year cycle. This 41% reduction in qualified drivers is not the result of individuals failing the background check -- less than 1% fail the check -- but rather is a result of the onerous process associated with obtaining this credential and the fact that drivers often must obtain multiple credentials that entail expensive, duplicative federal background checks.

Drivers that transport hazardous materials must submit to a fingerprint-based background check to obtain HME to their CDL. This credential costs approximately \$100, requires multiple visits to the licensing agency to complete the process and involves a delay of several weeks before the credential is issued. Many of these drivers also access port facilities and therefore must obtain a Transportation Worker Identification Credential (TWIC) – these drivers receive a discount if they have already been through an HME check, but still must pay an additional \$105.25 for the second credential.<sup>5</sup> We estimate the cost of obtaining federal credentials for Con-way's drivers to be approximately \$250,000.

We recently learned that the city of Doraville, Georgia has imposed a security background check for individuals that access the Doraville petroleum loading facilities. Under this program, Doraville collects fingerprints, transmits the prints to the federal government, receives a criminal history report, and then issues a Doraville credential at a cost of \$100. The background check performed is identical to the check performed by TSA under the HME and TWIC programs. Unfortunately, Doraville has refused to recognize the HME or the TWIC as an acceptable credential. The ability of states and municipalities to subject hazmat drivers to redundant criminal history background checks could easily become an unbearable financial burden to hazmat drivers that operate in hundreds of cities throughout the country. The Doraville credential is a revenue raiser for the City, but provides no additional security. Congress should preempt these duplicative background check requirements imposed by states and political subdivisions.

---

<sup>4</sup> See Testimony of Asst. Director Justin Oberman, TSA Threat Detection and Credentialing Office, before the House Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity (November 5, 2005).

<sup>5</sup> Additional background checks and credentials are required for drivers that access airports, drivers that deliver freight to Canada and Mexico, and drivers that haul freight for the Department of Defense. See Exhibit 1 for a chart depicting the various background checks and credentials that should be harmonized.

To address the problem of redundant security background checks for drivers transporting hazardous materials, Congress should enact a risk-based approach to background checks. This approach has four elements. The federal government should:

1. Recognize that not all hazardous materials are security sensitive. Paint, food coloring, and pharmaceuticals are not weapons of mass destruction. Congress should require the Department of Homeland Security (DHS) to work with DOT to identify a list of security sensitive hazardous materials that are truly weaponizable.
2. Require individuals that transport security sensitive hazardous materials to undergo a fingerprint-based background check and obtain a TWIC as evidence of their fitness to transport these hazardous materials of concern.
3. Continue to perform name-based background checks for drivers seeking to obtain or renew their hazardous materials endorsements to their CDL.
4. Ensure that the TWIC is the only security credential required for transportation workers and preempt other state and local background checks and credentials when applied to drivers transporting hazardous materials.

If enacted, the legislation – referred to as the Safe Truckers Act – would reduce the cost of background checks for drivers while not impacting the secure transportation of hazardous materials. We recognize that jurisdiction over this issue is shared in the House between the Transportation and Infrastructure Committee and the Committee on Homeland Security. We encourage the two Committees to work together to secure passage of this much-needed legislation. The background check reforms envisioned under the Safe Truckers Act will put money back in the pockets of America’s truck drivers, help preserve scarce government resources, and maintain the highest standards of security.

## II. Uniform Permitting Program

Individual states have imposed more than 40 separate hazardous materials permitting programs.<sup>6</sup> These motor carrier permitting requirements are triggered based upon the type of hazardous material being transported through the state. Some states have more than one permit, depending upon the types of hazardous materials being transported. Compliance with these separate programs is an enormous administrative burden for trucking companies that operate in multiple states, as it is extremely difficult to identify and monitor changes to these different permitting programs. For some smaller trucking companies, it is difficult to predict which states they may travel through and whether they will transport particular types of hazardous materials through that state in a given year.

---

<sup>6</sup> See Exhibit 2, a map depicting the states with individual permit programs applicable to the transportation of hazardous materials.

There is a solution. ATA supports the implementation of the “Uniform Program,” which is currently administered by seven states (*i.e.*, IL, MI, MN, NV, OH, OK, and WV). The Uniform Program is a “base state” permitting program that ensures participating states will continue to receive the revenue they have come to rely upon under their individual permitting programs. Moreover the program ensures that the fees states assess are fairly apportioned and are dedicated to improving hazardous materials transportation safety.

The implementation of the Uniform Program would reduce state expenses, as the inspection and administrative functions would be shared by all participating states. The implementation of the program also would reduce the administrative burden on the regulated industry.

To transition from the current individual permits to the Uniform Program, Congress should enact a carrot and stick approach. Initially, Congress should provide grants to help states convert their computers and other administrative functions to be compatible with the Uniform Program. Congress should then select a date certain whereby separate state permitting programs would be preempted.

### III. Equitable Enforcement

The hazardous materials regulations (HMRs) consist of more than 500 pages of regulatory text. Regulatory requirements vary depending upon the types and quantities of materials being transported. The complexity of these regulations makes it very difficult to train drivers who are called upon to transport many different types of hazardous materials. Con-way has a robust driver training program. We estimate that we spend more than \$700,000 training our hazmat employees to operate in compliance with the HMRs. However, we will never be able to train our drivers to catch every mistake that is made by our customers.

Primary compliance with the HMRs rests with the shipper of the materials, who must properly classify the material, select appropriate packaging, mark and label the package and prepare a compliant hazardous materials shipping paper. Each of these “pre-transportation” activities occurs before the carrier arrives to load hazardous materials packages on the truck. Because most violations of the HMRs are discovered during roadside inspections, drivers and motor carriers frequently receive citations for violations of the HMRs that they did not cause and cannot reasonably be expected to discover.

For example, a carrier should not be held responsible for transporting undeclared hazardous materials, where a shipper neither labels the package nor presents a hazardous materials shipping paper to the carrier prior to transportation. A driver cannot be expected to catch shippers that intentionally conceal the transportation of hazardous materials. Similarly, where a shipper tenders a package of *boron trifluoride diethyl etherate* and indicates on the shipping paper that the chemical is corrosive, but fails to denote that the chemical also has a subsidiary hazard of flammable, it is not realistic to

expect the driver picking up the package to research the chemical and catch the shipper's mistake in failing to also list the subsidiary hazard on the shipping paper.

To address this inequity, Congress should distinguish between functions that are normally performed by a shipper and functions that are the responsibility of the carrier, and clarify that a carrier is not responsible for violations that result from pre-transportation functions performed by another person, unless the carrier has actual knowledge of the violation. While carriers must remain responsible for the correct performance of hazardous materials functions under their control (*e.g.*, blocking and bracing, placarding, segregation of incompatible hazard classes), they cannot be expected to correct shippers' mistakes in the performance of pre-transportation functions. The issuance of violations to carriers for activities that are performed by others does nothing to address the compliance and safety problems created by the responsible party. This results in continuing behavior that is not in accordance with the regulations and the failure to correct unsafe hazardous materials transportation conditions.

Congress should enact a provision that removes a carrier's liability for violations of pre-transportation functions that are performed by a shipper, unless the carrier has actual knowledge of the violation.

#### IV. Uniform Regulations Across Jurisdictions

Motor carriers that transport hazardous materials necessarily operate in multiple jurisdictions. Non-uniform regulations force carriers to bypass certain jurisdictions, resulting in a delay in the delivery of hazardous materials and increased vehicle miles traveled.<sup>7</sup> Statistically, the more time hazardous materials spend in transportation or the more miles they must travel, the more likely it is that they will be involved in an incident. Non-uniform regulations also make it difficult to train workers that perform their duties in multiple jurisdictions. This leads to increase incidents of non-compliance and associated fines for failure to comply with unique regulatory requirements that vary from state-to-state.

Congress recognized that differing regulatory requirements confounds motor carriers ability to operate in compliance and compromises safety where incentives are created to avoid transporting hazardous materials in the most direct and expeditious manner possible. To this end, Congress explicitly provided preemptive authority to DOT.

Congress should continue to strengthen DOT's ability to ensure uniform regulations covering the transportation of hazardous materials by eliminating the exemption to preemption in section 5125(h). This provision, which was added in 2005, removed all preemptive limitations to State enforcement authority. One example of the overly broad nature of this exemption is that it could be invoked to prevent DOT from

---

<sup>7</sup> This results in additional fuel consumed and an increase in carbon emissions, in addition to the increased safety risks caused by diversion.

preempting a state requirement that motor carriers be held liable for the release of hazardous materials even if they do not cause or otherwise contribute to the release. Is it fair to hold the motor carrier responsible where a drunk driver crashes into a cargo tank and causes a release of hazardous materials, through no fault of the carrier? Massachusetts has pending legislation that would impose this type of liability upon motor carriers. DOT must have the authority to preempt these types of inequitable enforcement schemes, which frustrate interstate commerce, will unnecessarily increase insurance premiums and the cost of transporting hazardous materials, and could result in motor carriers deciding not to transport hazardous materials through certain jurisdictions.

#### V. OSHA's Overlapping Jurisdiction

ATA supports a modification to the joint regulatory authority that OSHA and DOT exercise with respect to the transportation of hazardous materials. This overlapping jurisdiction erodes the regulatory uniformity necessary for the safe and efficient transportation of hazardous materials and makes it difficult to train drivers that must perform their duties in multiple jurisdictions.

Unlike DOT, OSHA does not have the authority to ensure uniform regulations. In fact, states are encouraged to enact more stringent worker protection regulations than the federal baseline established by OSHA, which leads to a myriad of differing regulatory requirements across jurisdictional lines. This type of regulatory framework may work well for employees at fixed facilities, but is problematic for transportation companies, whose employees work in multiple states.

The potential problems associated with OSHA's overlapping jurisdiction became obvious last year when OSHA proposed revisions to its explosives standard. If promulgated as proposed, this standard would be inconsistent with DOT's regulations in a number of areas covering the transportation of hazardous materials. Some of these inconsistencies include: different fire extinguisher standards, requirements to move fixed refueling facilities, trailer modifications, and segregation requirements.

ATA is concerned about employee safety and supports a compromise solution that would ensure uniform regulations, while preserving OSHA's role in addressing potential unsafe conditions for employees. To implement this solution, Congress should eliminate the overlapping jurisdiction by deleting the jurisdictional provision in 5107(g) and simultaneously requiring the Secretary of Labor to identify any gaps in the hazardous materials regulations that create an unsafe condition for employees and then notify the Secretary of Transportation. Upon such notification the Secretary of Transportation should be required to address these unsafe conditions.

#### VI. Wetlines

Wetlines refer to the product piping underneath cargo tank trucks that transport gasoline and other flammable liquids. ATA opposes a legislative mandate for the

installation of costly equipment to purge residual product from wetlines for the reasons discussed below.

In 1998, following a fatal accident, the National Transportation Safety Board (NTSB) issued a recommendation to DOT to prohibit the transport of flammable materials in wetlines to reduce the risk of serious injuries from the release of product in the event that a car crashes into a tank truck. In 2004, the Research and Special Programs Administration (RSPA), predecessor to PHMSA proposed a rule to regulate flammable liquids in wetlines. The proposed rule would have required tank trucks to install a device that pumped any residual liquid back into the tank prior to transportation. Based upon its analysis of data from incidents attributable to wetlines and the costs associated with requiring equipment to evacuate product from wetlines, PHMSA concluded that the costs of the proposed regulation exceeded its benefits and properly withdrew the proposed rule.<sup>8</sup>

The industry's safety record demonstrates that a mandate for wetlines-purging equipment is simply not justified. An examination of DOT's hazmat incident database reveals that over the past 6 years there has not been a single wetlines incident that has resulted in a fatality or injury.<sup>9</sup> Since 1990, incident data reveals that 7 fatalities and 2 minor injuries, at most, could be classified as wetlines related incidents. By contrast, more than 50,000 cargo tank shipments of flammable liquids occur each day and over 300 million shipments have occurred since 1990.

A Congressional mandate to regulate cargo tank wetlines would significantly increase equipment and operational costs for the tank truck segment of the trucking industry. In 2004, we estimated that 26,000 vehicles would be impacted at a cost of \$3,000 each. This figure did not include the costs associated with the "downtime" during the retrofit process, nor did it include the cost of hiring and training additional personnel responsible for maintaining wetlines purging equipment. From an operations standpoint, carrier efficiency would decrease as a result of delays at loading facilities waiting for wetlines to be purged. System malfunctions would further erode carrier efficiency.

We urge Congress to rely on the experts at PHMSA with respect to the wetlines issue and not take action to overturn the regulatory process and mandate a technology that would not appreciably increase the safe transportation of hazardous materials, but would impose significant costs on an industry that is struggling in this difficult economic environment.

\* \* \* \* \*

---

<sup>8</sup> RSPA responded to an NTSB recommendation, proposed a solution to a perceived problem, accepted comments, analyzed the data, and then properly concluded that the costs of the proposed solution far exceeded its benefits.

<sup>9</sup> PHMSA Incident Reporting Data provided to ATA on April 28, 2009. In fact, there have been only two wetlines incidents since 2002.

In closing we would like to recognize that while the existing federal hazardous materials law and its accompanying regulations go a long way towards ensuring the safe, secure and efficient movement of hazardous materials, there is room for improvement. As Congress moves to reauthorize the federal hazardous materials transportation law it is critically important to ensure uniformity across jurisdictional lines. This is the theme that runs through the priority issues highlighted in this testimony.

ATA and Con-way greatly appreciate this opportunity to offer our insight into measures to improve the safe, secure and efficient transportation of hazardous materials. Thank you for allowing me to testify. I am pleased to answer any questions you and the other members of the Subcommittee may have.

## Exhibit 1

Program	Cost to Driver	Purpose
Hazardous Materials Endorsement (HME)	\$94 <sup>10</sup>	Federal Security Credential for Transportation of Hazardous Materials (TSA)
Transportation Worker Identification Credential (TWIC)	\$132.50 <sup>11</sup>	Federal Security Credential for Access to Port Facilities (TSA)
Secure Identification Display Area (SIDA)	\$29 <sup>12</sup>	Federal Security Credential for Access to Airport Facilities (TSA)
Air Cargo Security Threat Assessment	\$28 <sup>13</sup>	Federal Security Credential for Access to Air Cargo (TSA)
Free and Secure Trade (FAST)	\$50 <sup>14</sup>	Federal Security Credential for Border Crossing (CBP)
Florida Uniform Port Access Credential (FUPAC)	\$85 <sup>15</sup>	State Security Credential for Access to Florida Ports (Florida)
Doraville Petroleum Facility Access Credential	\$100 <sup>16</sup>	Local Security Credential for Access to Local Petroleum Loading Facilities (Doraville City Council)

<sup>10</sup> Includes \$22 FBI database search fee, \$34 TSA threat assessment fee, and \$38 information collection fee (TSA contractor). States that manage their own information/fingerprint collection are authorized by TSA to establish separate fees, which range from \$70 to \$133.

<sup>11</sup> Includes \$43.25 enrollment fee, \$72 for card production/security threat assessment fees, and \$17.25 (discounted amount)<sup>7</sup> for the FBI fee. Applicants with an HME or FAST card will not be charged the \$17.25 FBI fee and will receive a \$10 discount for the card production/STA.

<sup>12</sup> Includes \$22 FBI database search fee, \$2 clearinghouse facilitation fee, and \$5 electronic collection fee or \$7 manual collection fee.

<sup>13</sup> Fee to include collection, clearinghouse facilitation costs, OPM and FBI fees.

<sup>14</sup> Includes check against criminal and immigrant databases in U.S. and Canada and issuance of RFID tag.

<sup>15</sup> Includes \$24 FBI database search fee, \$33 information collection fee, and \$28 for the State Department of Highway Safety to support access related system expenditures.

<sup>16</sup> Two-year credential required to access petroleum terminals located in Doraville. City refuses to accept HME or TWIC.



## Motor Carrier Citations from Roadside Inspections (2005)

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
PART	SECTION			
107	620(b)	NO COPY OF US DOT HM REGISTRATION NUMBER	5 509	C
171	11(d)	TRANSPORTING HM PER ICAO W/O MEETING ADDITIONAL REQUIREMENTS	3	RP
171	12(b)	TRANSPORTING HM PER IMDG W/O MEETING ADDITIONAL REQUIREMENTS	6	RP
171	12a(b)	US REQUIREMENTS FOR TDG SHIPMENT	3	RP
171	2	HAZMAT (GENERAL REQUIREMENTS)	2	RP
171	2(a)	OFFERING/ACCEPTING HM SHIPMENT NOT PROPERLY PACKAGED	145	
171	2(b)	TRANSPORTING/HANDLING HM NOT IN ACCORDANCE WITH REGULATIONS	885	
172	200	SHIPPING PAPERS (GENERAL)	5	RP Depends on who prepares the shipping paper
172	200(a)	OFFERING A HM WITHOUT PREPARING A SHIPPING PAPER (NONE AT ALL)	2 317	RP
172	201(a)(1)	FAILING TO ENTER HM DESCRI P ON SHIP PAPER IN MANNER REQUIRED	723	RP
172	201(a)(2)	FAILING TO ENTER HM DESCRIPTION LEGIBLY IN ENGLISH	143	RP
172	201(a)(3)	USING AN UNAUTHORIZED CODE/ABBREVIATION ON AN HM SHIPPING PAPER	36	RP
172	201(a)(4)	ADDITIONAL INFORMATION AFTER HM BASIC DESC	148	RP
172	201(c)	FAILURE TO LIST PAGE OF PAGES	53	RP
172	201(d)	FAILING TO ENTER EMERGENCY RESPONSE PHONE # ON SHIPPING PAPER	881	RP
172	202	SHIPPING PAPER BASIC DESC	4	RP
172	202(a)(1)	NO PROPER SHIPPING NAME	996	RP
172	202(a)(2)	NO PROPER HAZARD CLASS	582	RP
172	202(a)(3)	WRONG OR NO ID NUMBER	582	RP
172	202(a)(4)	NO PACKING GROUP LISTED	649	RP
172	202(a)(5)	FAILING TO ENTER TOTAL QTY OF HM ON SHIPPING PAPER	578	RP

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
172	202(b)	FAILING TO ENTER BASIC DESCRIPTION OF HM IN PROPER SEQUENCE	290	RP
172	202(c)	TOTAL QUANTITY PROPER LOCATION	57	RP
172	202(e)	NON HM ENTERED WITH CLASS OR ID#	17	RP
172	203	ADDITIONAL SHIPPING PAPER DESC	1	RP
172	203(a)	FAILING TO ENTER EXEMPTION #	353	RP
172	203(b)	FAILING TO ENTER "LIMITED QUANTITY"/"LTD QTY" ON SHIPPING PAPER	18	RP
172	203(c)(1)	FAILING TO ENTER HAZ. SUBSTANCE CONSTITUENT ON SHIPPING PAPER	36	RP
172	203(c)(2)	FAILING TO ENTER "RQ" ON SHIPPING PAPER FOR HAZARDOUS SUBSTANCE	371	RP
172	203(d)(1)	RADIOACTIVE MATERIAL NOT NOTED	2	S
172	203(d)(2)	RADIOACTIVE INF NAME NOT ON SHIPPING PAPER	2	S
172	203(d)(3)	NO RAM PHYSICAL OR CHEMICAL FORM	1	S
172	203(d)(4)	NO RAM ACTIVITY	2	S
172	203(d)(5)	NO RAM LABEL CATEGORY	1	S
172	203(d)(6)	NO RAM TRANSPORT INDEX	3	S
172	203(d)(7)	NO FISSILE RADIOACTIVE ENTRY	3	S
172	203(e)	NON HM ENTERED WITH CLASS OR ID#	30	RP
172	203(h)(1)	FAILING TO INCLUDE "0.2 % WATER" FOR ANHYDROUS AMMONIA	1	RP
172	203(h)(2)	FAILING TO INCLUDE "NONCORROSIVE"/"NONCOR" ON LPG SHIP. PAPER	5	RP
172	203(k)	FAILING TO ENTER THE TECHNICAL NAME IN ASSOC. WITH DESCRIPTION	110	RP
172	203(m)(1)	FAILING TO ENTER "POISON" WHEN REQUIRED	4	RP
172	203(m)(2)	FAILING TO ENTER "POISON INHALATION HAZARD" ON SHIPPING PAPER	26	RP
172	203(m)(3)	NO POISON INHALATION HAZARD AND/OR ZONE A	3	RP
172	203(n)	NO "HOT" ON SHIPPING PAPER	10	RP
172	205	HAZARDOUS WASTE MANIFEST NOT AS REQUIRED	31	S
172	300	MARKING REQUIREMENT (GENERAL)	16	S

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
172	301	NON-BULK PKG MARKING- GENERAL	23	S
172	301(a)	NO SHIPPING NAME OR ID# ON NON-BULK	675	S
172	301(b)	NO TECHNICAL NAME ON NON-BULK	48	S
172	301(c)	NO EXEMPTION NUMBER ON NON-BULK	6	S
172	301(d)	NO CONSIGNEE/CONSIGNOR ON NON-BULK	18	S
172	302	MARKING REQUIREMENTS BULK PACKAGINGS	92	S
172	302(a)	FAILING TO MARK A BULK PACKAGE CONTAINING HM W/ ID#	340	S
172	302(b)	BULK PACKAGE MARKING INCORRECT SIZE	29	S
172	302(c)	NO EXEMPTION NUMBER ON BULK PACKAGE	14	S
172	303(a)	PROHIBITED HM MARKING ON PACKAGE	116	S
172	304	MARKING-ENGLISH BACKG,OTH MARK	1	S
172	304(a)(1)	PACKAGE MARKING NOT DURABLE, ENGLISH OR PRINT	138	S
172	304(a)(2)	MARKING NOT ON SHARPLY CONTRASTING COLOR	36	S
172	304(a)(3)	MARKING OBSCURED BY LABEL OR ATTACHMENTS	61	S
172	304(a)(4)	MARKING NOT AWAY FROM OTHER MARKING	6	S
172	308(a)	PACKAGE MARKED WITH UNAUTHORIZED ABBREVIATION	1	S
172	310(a)	FAILING TO MARK RAM PKG OF > 50 KGS W/ GROSS WEIGHT	6	S
172	310(b)	PACKAGE OF RAM NOT MARKED *TYPE A* OR *TYPE B* AS APPROPRIATE	5	S
172	310(c)	TYPE B,B(U),B(M) PKG NOT MRKD W/RADIATION SYM	1	S
172	312(a)	NO PACKAGE ORIENTATION ARROWS	2	S
172	312(a)(2)	FAILING TO MARK LIQUID HM PKG. WITH ARROWS	24	S
172	312(b)	PROHIBITED USE OF ORIENTATION ARROWS	11	S
172	313(a)	FAILING TO MARK A PACKAGE OF HM WITH *INHALATION HAZARD*	9	S
172	313(b)	NO *POISON* ON NON-BULK PLASTIC PACKAGE	3	S
172	316(a)	FAILING TO MARK NON-BULK PACKAGE WITH *ORM*	9	S
172	320(a)	FAILING TO MARK PKG W/ CLASS 1 MTRL W/ APPROPRIATE EX-NUMBER	1	S
172	322(b)	NO MAPPOL MARKING ON BULK PACKAGING	37	S

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/PP/O)
172	324	NON BULK HAZARDOUS SUBSTANCE NOT MARKED	22	S
172	325	NO "HOT" MARKING FOR BULK ELEVATED TEMP	6	S
172	325(a)	ELEVATED TEMP NOT MARKED "HOT"	45	S
172	325(b)	IMPROPERLY MARKED MOLTEN ALUM/SULPHUR	2	S
172	326	PORTABLE TANK MARKING	5	S
172	326(a)	FAILING TO MARK PORTABLE TANK W/ PROPER SHIP NAME OF CONTENTS	58	S
172	326(b)	FAILING TO MARK A PORTABLE TANK WITH NAME OF OWNER OR LESSEE	24	S
172	326(c)(1)	FAILING TO MARK PORTABLE TANK CONTAINER/VEHICLE WITH ID #	81	S
172	326(c)(2)	FAILING TO PROVIDE CARRIER W/ ID# FOR PORTABLE TANK	4	S
172	328	NO ID NUMBER DISPLAYED ON A CARGO TANK	7	S
172	328(a)	SHIPPER FAILED TO PROVIDE OR AFFIX ID# FOR CT	150	S
172	328(b)	FAILING TO MARK CARGO TANK WITH SHIPPING NAME/OTHER MARKINGS	108	S
172	328(c)	NO QT/NOT MARKED ON CARGO TANK (MC330/331)	130	O
172	330(a)(2)	TANK CAR TANK (NON CYLINDER) NOT MRKD AS REQD	2	O
172	330(b)	VEHICLE WITH TANK CAR TANK NOT MARKED	1	S
172	331	MARKINGS FOR OTHER BULK PACKAGES	162	S
172	332	ID# MARKING FOR (B) PANEL (C) PLACARDS	443	C
172	334	PROHIBITED ID NUMBER MARKING	156	S
172	338	FAILING TO REPLACE LOST/DESTROYED ID # ON PLACARDS/PANELS	30	C
172	400(a)	FAILING TO (PROPERLY) LABEL HM CONTAINER OR PACKAGE	697	S
172	401	PROHIBITED LABELING	127	S
172	402(a)	NO LABEL FOR SUBSIDIARY HAZARD	77	S
172	402(b)	DISPLAY OF CLASS NUMBER ON LABEL	10	S
172	402(e)	SUBSIDIARY LABELING FOR CLASS 1 MATERIALS	2	S
172	403(a)	RAM LABEL REQUIREMENT	12	S
172	403(f)	FAILING TO LABEL 2 OPPOSITE SIDES OF RAM PACKAGE	1	S

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
172	403(g)	CONTENTS, ACTIVITY OR TRANSPORT INDEX MISSING FROM RAM LABEL	3	S
172	404(b)	FAILED TO PROPERLY LABEL CONSOLIDATED PACKAGE	5	S
172	406	LABEL PLACEMENT	1	S
172	406(a)(1)	LABEL PLACEMENT NOT AS REQUIRED	94	S
172	406(c)	MULTIPLE LABEL PLACEMENT NOT AS REQUIRED	7	S
172	406(d)	LABEL NOT ON CONTRASTING BKGRND OR NO BORDER	3	S
172	406(e)	FAILED TO DISPLAY DUPLICATE LABEL AS REQUIRED	6	S
172	406(f)	LABEL OBSCURED BY MARKING OR ATTACHMENT	61	S
172	500	PLACARDING (GENERAL)	2	C
172	502(a)(1)	PROHIBITED PLACARDING	4,884	C
172	502(a)(2)	PLACARD/DEVICE COULD BE CONFUSED/CONFLICT WITH DOT PLACARD	2,518	C
172	504	PLACARDS NOT IN TABLE 1 OR 2	2	C
172	504(a)	FAILING TO PLACARD A VEHICLE AS REQUIRED	5,662	C
172	504(b)	FAILURE TO PLACARD POISON MTRL THAT IS POISON INHALATION HAZARD	148	C
172	505	SUBSID PLACARDS NOT AS REQUIRED	2	C
172	505(a)	FAILURE TO PLACARD POISON MTRL THAT IS POISON INHALATION HAZARD	44	C
172	505(b)	NO PLACARD FOR RAM AND CORROSIVE	8	C
172	505(c)	PLACARD FOR SUBSIDIARY DANGEROUS WHEN WET	8	C
172	506(a)	FAILING TO PROVIDE TO A MOTOR CARRIER THE REQUIRED PLACARDS	37	S
172	506(a)(1)	PLACARDS NOT AFFIXED TO VEHICLE	678	C
172	507	RAM HIGHWAY ROUTE CONTROLLED QUANTITY	3	C
172	512(a)	FREIGHT CONTAINER NOT PLACARDED	7	RP
172	514(a)	BULK PACKAGE OFFERED WITHOUT PLACARD	110	C
172	514(b)	BULK PACKAGE NOT PLACARDED RESIDUE OF HM	34	RP
172	516(a)	FAILING TO AFFIX PLACARD IN CONFORMANCE WITH REQUIREMENTS	1,039	C

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/FP/O)
172	516(c)(1)	PLACARD NOT SECURELY AFFIXED OR ATTACHED	734	C
172	516(c)(2)	PLACARD NOT CLEAR OF APPURTENANCE	543	C
172	516(c)(4)	PLACARD IMPROPER LOCATION	188	C
172	516(c)(5)	PLACARD NOT READING HORIZONTALLY	1,040	C
172	516(c)(6)	PLACARD DAMAGED, DETERIORATED, OR OBSCURED	5,911	C
172	516(c)(7)	PLACARD NOT ON CONTRASTING BCKGRND OR BORDER	89	C
172	519	PLACARD DOES NOT MEET SPECIFICATIONS	533	C
172	600(c)	ER INFO NOT AVAILABLE	2,075	S
172	602(a)	FAILING TO HAVE ALL REQUIRED EMERGENCY RESPONSE INFO	1,641	S
172	602(b)	ER INFO NOT ACCESSIBLE	1,234	C
172	602(c)(1)	MAINTENANCE OF ER INFORMATION	483	C
172	604A	ER TELEPHONE # NOT AS REQUIRED	40	S
172	700	TRAINING OF HM EMPLOYEES	6	C
173	24(b)	FAILED TO MEET GENERAL PACKAGE REQUIREMENTS	244	S
173	24(b)(1)	RELEASE OF HM FROM PACKAGE	659	RP Depends on cause of release
173	24(c)	UNAUTHORIZED PACKAGING	177	S
173	24(f)(1)	CLOSURES FOR PKGS MUST NOT BE OPEN OR LEAKING	411	S
173	24a(a)(1)	Non bulk inner pkg closure open not upright	218	S
173	24a(a)(3)	Non bulk packaging securing and cushioning	36	S
173	24a(b)	Non-bulk package filling limit	3	S
173	24b(a)	Bulk package outage or filling limit rqmts	13	RP
173	24b(d)(2)	OFFERING A HM IN BULK PKG EXCEEDING MAX WEIGHT ON SPEC PLATE	14	S
173	25(a)	FAILED TO MEET OVERPACK CONDITIONS	16	RP
173	29(a)	TRANSPORTING EMPTY PACKAGES (RESIDUE)	14	S
173	30	FAILING TO COMPLY WITH PART 177 LOAD/UNLOAD REQUIREMENTS	99	RP
173	301(a)	Cylinder qualification & use	3	S

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
173	301(b)	Offering cylinder w/ markings not maintained	5	S
173	315(a)	CARGO OR PORTABLE TANK CLASS 2 FILLING DENST	17	S
173	315(j)(3)	RESIDENTIAL GAS TANK NOT SECURE IN TRANSPORT	6	C
173	315(j)(4)	LPG STORAGE TANK OVERFILLED FOR TRANSPORT	27	S
173	318(b)(10)	MARKING INLETS & OUTLETS CRYOGENIC TANKS	5	S
173	318(g)	NO ONE WAY TRAVEL TIME (OWTT)	1	S
173	32(e)(1)	PORTABLE TANK RETEST SCHEDULE (OUT OF DATE)	1	S
173	32(e)(3)	PORTABLE TANK RETEST MARKING	5	S
173	32b(a)	IM portable tank periodic testing	12	S
173	32b(d)	Test date marking	8	S
173	33	CARGO TANKS (GENERAL)	1	O
173	33(a)	OFFERING/ACCEPTING HM IN AN UNAUTHORIZED CARGO TANK MOTOR VEH	168	RP Depends on underlying violation
173	33(b)	CARGO TANK LOADING REQUIREMENTS	11	RP
173	33(c)(2)	CARGO TANK NOT MARKED WITH DESIGN OR MAWP	19	RP
173	34(c)	OFFERING CYLINDER W/ MARKINGS NOT MAINTAINED	28	S
173	34(e)	OFFERING A CYLINDER NOT RETESTED/MARKED AS REQUIRED	6	S
173	35(a)	INTERMEDIATE BULK CONTAINER REQUIREMENTS	3	S
173	35(d)	LIQUID FILLED IBC-ULLAGE OVER 98%	1	S
173	35(f)(2)	IBC NOT SECURED TO OR WITHIN VEHICLE	4	RP Sealed Loads?
173	412(b)	NO SEAL FOR TYPE A RAM PACKAGE	2	S
173	427(a)(iv)	NO INSTRUCTIONS FOR EXCLUSIVE USE PKG LSA	1	S
173	427(a)(vi)	LSA PACKAGE NOT MARKED AS REQUIRED	3	S
173	431	EXCEEDED ACTIVITY LIMITS TYPE A OR B PACKAGE	1	S
173	441(c)	NO EXCLUSIVE USE INSTRUCTIONS	1	S
173	442(b)(1)	RAM PKG EXCEEDS 50 DEGREES C ON EXTERNAL SURFACE(NON EXCLUSIVE)	1	S
173	60	GENERAL PACKAGING REQUIREMENTS EXPLOSIVES	4	S

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
173	9(b)	FAILING TO PROPERLY MARK A FUMIGATED TRANSPORT VEHICLE	4	C
177	800	FAILURE TO TRAIN EMPLOYEES	1	C
177	800(d)	FAILING TO PROPERLY FORWARD SHIPMENTS OF HAZARDOUS MATERIALS	1	C
177	801	TRANSPORTING/ACCEPTING HM IMPROPERLY PREPARED FOR SHIPMENT	60	C <small>Underlying violation 803(a)</small>
177	804	FAILING TO COMPLY WITH THE FMCSR WHEN TRANSPORTING HM	276	C
177	816	DRIVER TRAINING REQUIREMENTS	212	C
177	817(a)	TRANSPORTING AN HM SHIPMENT WITHOUT A PROPER SHIPPING PAPER	2 606	RP <small>Underlying violation 803(a)</small>
177	817(c)	ACCEPTING AN HM SHIPMENT WITHOUT SHIPPER'S CERTIFICATION	123	C <small>Underlying violation 803(a)</small>
177	817(e)	FAILING TO MAINTAIN PROPER ACCESSIBILITY OF SHIPPING PAPERS	2 570	C
177	822(c)	MOVING A VEHICLE CONTAINING HM THAT IS NOT MARKED OR PLACARDED	2 110	RP <small>Depends on underlying violation</small>
177	834	LOAD SECURE BLOCK/BRACE	2	C
177	834(a)	FAILING TO SECURE HM CONTAINER AGAINST MOVEMENT IN TRANSIT	3 428	RP <small>Secured Loads</small>
177	834(c)	PERMITTING SMOKING WHILE LOADING/UNLOAD EXPLOSIVES/FLAMMABLES	16	RP
177	834(g)	FAILING TO BRACE CONTAINERS OF HM TO PREVENT RELATIVE MOTION	682	C
177	834(i)	ATTENDANCE OF CARGO TANK (LOAD OR UNLOAD)	13	C
177	834(j)	MANHOLES AND VALVES NOT CLOSED OR LEAK FREE	547	RP
177	834(m)(1)	SECURING SPEC 106A OR 110A TANKS	1	C
177	834(n)	IMPROPER SPEC 56, 57, IM101 & IM102	3	C
177	835	IMPROPER TRANSPORT OF EXPLOSIVES (CLASS 1)	13	C
177	835(a)	LOADING/UNLOADING CLASS 1 EXPLOSIVE WITH ENGINE RUNNING	1	C
177	835(c)	TRANSPORTING DIV 1.1 OR 1.2 (EXPLOSIVE) WHEN NOT PERMISSIBLE	1	C

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
177	837	FLAM LIQUID TRANSPORT VIOL	16	C
177	838	IMPROPER TRANSPORT OF CLASS 4 5 OR DIV 4 2	3	C
177	839	IMPROPER TRANSPORTING OF CLASS B	18	C
177	840	IMPROPER TRANSPORT OF CLASS 2	94	C
177	840(g)	DISCHARGE VALVE NOT CLOSED IN TRANSIT CLASS 2	28	C
177	841	IMPROPER TRANSPORT OF DIVISION 6 1 OR 2 3	2	C
177	841(e)	TRANSPORTING POISON & FOODSTUFF IN SAME VEHICLE	4	C
177	842(d)	IMPROPER BLOCKING/BRACING RAM TO PREVENT MOVEMENT IN TRANSPORT	22	C
177	848(d)	PROHIBITED LOAD/TRANSPORT/STORAGE COMBINATION	53	C
177	848(f)	CLASS 1 LOAD SEPARATION OR SEGREGATION	10	C
178	245-4	DOT51 integrity and securement	2	S
178	245 5	DOT51 valve protection	1	S
178	245 6(b)	TANK OUTLETS NOT MARKED	4	S
178	251-7(b)	DOT56/57 SPEC MARKINGS (REMOVE)	13	S
178	253 2	DOT57 manhole (REMOVE)	1	S
178	255 7	DOT60 valve protection	2	S
178	270 11(d)(1)	IM101/102 PRESSURE RELIEF	1	S
178	270 14	IM101/102 spec plate	1	S
178	270 4	STRUCTURAL INTEGRITY	4	S
178	270 9	IM101/102 MANHOLES	2	S
178	32CM	IM101/102 LOAD SECUREMENT	39	S
178	336-10	Protecting of fittings MC330	21	O
178	336-13	ANCHORING OF TANK MC330	1	O
178	336 17	Metal ID plate marking MC330	2	O
178	336 17(a)	CERTIFICATION PLATE MC330	3	O
178	336-9(a)	SAFETY RELIEF DEVICES MC330	22	O
178	336-9(c)	Marking of inlets/outlets MC330	28	O

REGULATION	DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/R/P/O)	
178	337-10(a)	PROTECTION OF FITTINGS MC331	8	O
178	337-10(d)	REAR END PROTECTION MC331	1	O
178	337-11(a)(2)	REMOTE CONTROL >3500 GAL MC331	16	O
178	337-11(a)(2)(i)	Remote control >3500 gal MC331	43	O
178	337-11(a)(2)(ii)	REMOTE CONTROL < 3500 GAL MC331	32	O
178	337-11(b)	Shut off valves MC331 (DELETE)	14	O
178	337-13	MC331 supports and anchoring	50	O
178	337-17(a)	Metal id plate missing MC331	27	O
178	337-8(a)	OUTLETS GENERAL REQUIREMENTS MC331	8	O
178	337-8(a)(2)	Outlets MC331	13	O
178	337-8(a)(3)	INTERNAL OR BACK FLOW VALVE MC331	2	O
178	337-8(a)(4)(i)	REMOTE CLOSURE DEVICE >3500 GAL MC331	17	O
178	337-8(a)(4)(ii)	REMOTE CLOSURE DEVICE <3500 GAL MC331	10	O
178	337-9	PRESSURE RELIEF DEVICES MC331	9	O
178	337-9(c)	MARKING INLETS/OUTLETS MC331	141	O
178	338-10(a)	PROTECTION OF FITTINGS MC338	1	O
178	338-10(c)	Rear end protection MC338	70	O
178	338-10(e)	GROUND CLEARANCE MC338	1	O
178	338-11(b)	Manual shutoff valve MC338	7	O
178	338-13	Supports and anchoring MC338	15	O
178	338-18(a)	Name plate/Specification plate missing MC338	11	O
178	338-18(b)	Specification plate missing MC338 (REMOVE)	3	O
178	338-6	MANHOLE MC338	2	O
178	340-10(b)	MC306/307/312 METAL CERTIFICATN PLATE MISSING	188	O
178	340-6	MC306/307/312 SUPPORTS & ANCHORING	326	O
178	340-7(a)	MC306/307/312 ring stiffeners	27	O
178	340-7(c)	MC306/307/312 DOUBLE BULKHEAD DRAIN	122	O
178	340-7(d)(2)	MC306/307/312 ring stiffener drain hole	23	O

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
178	340-8(a)	MC306/307/312 appurtenances attachment	43	O
178	340-8(b)	MC306/307/312 REAREND PROTECTION	52	O
178	340-8(c)	MC306/307/312 OVERTURN PROTECTION	38	O
178	340-8(d)(1)	MC306/307/312 piping protection	26	O
178	340-8(d)(2)	MC306/307/312 minimum road clearance	18	O
178	341-3(a)	MC 306 no manhole closure	10	O
178	341-4	MC306 VENTING	20	O
178	341-4(d)(1)	MC306 INADEQUATE EMERGENCY VENTING	4	O
178	341-4(d)(3)	MC 306 no fusible venting	12	O
178	341-5(a)	MC306 INTERNAL VALVES	70	O
178	341-5(a)(1)	MC306 HEAT ACTUATED SAFETY	12	O
178	341-5(a)(2)	MC306 REMOTE CONTROL SHUTOFF	219	O
178	342-3	MC307 manhole closure	41	O
178	342-4	MC307 VENTING	25	O
178	342-4(b)	INADEQUATE VENTING CAPACITY	5	O
178	342-5(a)	MC307 INTERNAL VALVE	31	O
178	342-5(a)(1)	MC307 HEAT ACTUATED SAFETY	12	O
178	342-5(a)(2)	MC307 remote control shutoff	50	O
178	343-3	Manhole closure MC312	13	O
178	343-4	VENTING MC312 (SHOW CALCULATIONS)	2	O
178	343-5(a)	MC 312 TOP OUTLET AND VALVE	4	O
178	343-5(b)(1)	MC312 BOTTOM VALVE/PIPING PROTECTION	4	O
178	345-1(f)(2)	406, 407, 412 double bulkhead drain	115	O
178	345-10	DOT406/407/412 pressure relief	24	O
178	345-11(b)	DOT406/407/412 tank valves	49	O
178	345-11(b)(1)	DOT406/407/412 REMOTE CONTROL	70	O
178	345-11(b)(1)(i)	DOT406/407/412 remote control	11	O
178	345-11(b)(1)(ii)	DOT406/407/412 thermal and remote	1	O

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
178	345-11(b)(1)(iii)	DOT406/407/412 THERMAL AND REMOTE	4	O
178	345-14(b)	DOT406/407/412 name plate	13	O
178	345-14(c)	DOT406/407/412 SPECIFICATION PLATE	39	O
178	345-5(d)	DOT406/407/412 manhole securement	55	O
178	345-5(e)	DOT 406/407/412 manhole marking	1	O
178	345-6	DOT406/407/412 supports & anchoring	108	O
178	345-7(d)(4)	DOT406/407/412 ring stiffener drain	17	O
178	345-8(a)	DOT406/407/412 accident protection	9	O
178	345-8(a)(5)	DOT406/407/412 minimum road clearance	22	O
178	345-8(b)	DOT406/407/412 bottom damage protection	2	O
178	345-8(c)	DOT406/407/412 rollover damage protection	11	O
178	345-8(d)	DOT406/407/412 rear end protection	19	O
178	703(a)	IBC MANUFACTURER MARKINGS	4	S
178	703(b)	IBC ADDITIONAL MARKINGS	2	S
178	704(e)	IBC PROTECTION VALVES	11	S
179	300-12	DOT106/110AW PROTECTION OF FITTINGS	1	S
179	300-13	DOT106/110AW VENTING AND VALVES	1	S
180	205(c)	PERIODIC REQUALIFICATION OF CYLINDERS	11	S
180	213(d)	REQUALIFICATION MARKINGS	20	S
180	352(b)	IBC RETEST OR INSPECTION	18	S
180	352(d)	IBC RETEST DATE MARKING	5	S
180	352(e)	IBC SPEC AND RETEST RECORDS	7	S
180	405(b)	MARKING OR CERTIFYING A CARGO TANK TO UNAUTHORIZED SPEC	88	O
180	405(j)	CARGO TANK WITHDRAWAL CERTIFICATION	21	O
180	407(a)(1)	Cargo tank periodic test and inspection	120	O
180	407(c)	FAILING TO PERIODICALLY TEST AND INSPECT A CARGO TANK	510	O
180	415(b)	CARGO TANK TEST OR INSPECTION MARKINGS	1,940	O

REGULATION		DESCRIPTION OF REGULATORY REQUIREMENT	NUMBER OF CITATIONS	RESPONSIBILITY (C/S/RP/O)
180	605	PERIODIC TESTING OF PORTABLE TANKS	8	O
180	605(k)	TEST DATE MARKING	51	O
397	101(b)	RAM VEHICLE NOT ON PREFERRED ROUTE	3	C
397	101(d)	NO WRITTEN ROUTE PLAN - RAM	5	C
397	101(e)(2)	COPY OF TRAINING RECORD/ROUTE (RAM)	5	C
397	11(a)	HAZMAT VEHICLE OPERATED NEAR OPEN FIRE	1	C
397	11(b)	HAZMAT VEHICLE PARKED WITHIN 300 FT OF FIRE	1	C
397	13	SMOKING WITHIN 25 FT OF HM VEHICLE	602	C
397	15	HM VEHICLE FUELING VIOLATION	3	C
397	17	NO TIRE EXAMINE HAZMAT VEHICLE	40	C
397	19	NO INSTRUCTIONS/DOCS 1 1/1 2/1 3	22	C
397	19(c)	REQUIRED DOCUMENTS NOT IN POSSESSION-EXPLOSIV	9	C
397	2	MUST COMPLY W/ RULES PARTS 390-397-TRANSP HM	31	C
397	3	DRIVING OR PARKING HM VEHICLE ILLEGALLY	786	C
397	5(a)	FAILING TO ATTEND VEHICLE CONTAINING DIV 1 1, 1 2, OR 1 3 MTRL	3	C
397	5(c)	FAILING TO ATTEND HM VEHICLE ON PUBLIC STREET/HIGHWAY/SHOULDER	18	C
397	7(a)	IMPROPERLY PARKED EXPLOSIVES VEHICLE	9	C
397	7(b)	IMPROPERLY PARKED HAZMAT VEHICLE	57	C
Total Violations issued to motor carriers during roadside inspections in 2005			72,175	C = 37,193 (51.5%) S = 9,015 (12.5%) O = 2,738 (3.8%) RP = 23,229 (32.2%)

178

STATEMENT OF  
FIRST OFFICER MARK ROGERS  
DIRECTOR, DANGEROUS GOODS PROGRAMS  
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL  
BEFORE THE  
SUBCOMMITTEE ON RAILROADS, PIPELINES,  
AND HAZARDOUS MATERIALS  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
UNITED STATES HOUSE OF REPRESENTATIVES  
WASHINGTON, DC

May 14, 2009

REAUTHORIZATION OF THE DEPARTMENT OF TRANSPORTATION'S  
HAZARDOUS MATERIALS SAFETY PROGRAM

Air Line Pilots Association, International  
1625 Massachusetts Avenue, NW  
Washington, DC 20036  
(202) 797-4033

STATEMENT OF  
FIRST OFFICER MARK ROGERS  
DIRECTOR, DANGEROUS GOODS PROGRAMS  
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL  
BEFORE THE  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
UNITED STATES HOUSE OF REPRESENTATIVES  
WASHINGTON, DC  
May 14, 2009

**Carriage of Lithium Batteries as Cargo  
on Passenger and Cargo Aircraft**

Good afternoon, Chairwoman Brown, Ranking Member Shuster, and members of the Subcommittee. I am Mark Rogers, a commercial airline pilot and Director of the Dangerous Goods Programs of the Air Line Pilots Association, International (ALPA). ALPA represents more than 54,000 pilots who fly for 36 passenger and all-cargo airlines in the United States and Canada. On behalf of our members, I want to thank you for the opportunity to provide our safety perspective on the carriage of lithium batteries as cargo on passenger and cargo aircraft.

ALPA has a vested interest in regulations governing shipments of hazardous materials aboard passenger and cargo-only aircraft. A topic of particular concern to us is the transport by air of lithium-ion and lithium-metal batteries. Over the past eight years, ALPA has urged the Department of Transportation's Pipeline and Hazardous Materials Administration (PHMSA) to:

- (1) Bring bulk shipments of lithium-metal (primary) and lithium-ion (secondary) batteries into the full scope of the dangerous goods regulations, and
- (2) Extend the prohibition of bulk shipments of lithium-metal batteries from passenger to cargo-only aircraft until adequate packaging standards can be developed to sufficiently protect the batteries.

**The Issue**

The degree of risk and well-documented history of incidents associated with lithium batteries justifies their inclusion in regulations pertaining to dangerous goods shipped by air, to include: packaging requirements, acceptance checks, package testing, labeling, quantity limitations and pilot notification. These measures are critically important as batteries are one of a few commodities in which damage to a shipment is the only thing necessary to start a fire. Experience has shown that a fire can emerge hours after battery damage has occurred. Undamaged lithium batteries may also self ignite and burn in the presence of a high-heat source.

Unlike other regulated dangerous goods such as dry ice and flammable paint, lithium-ion batteries are exempted (or follow different criteria) from the majority of the dangerous goods

regulations, including requirements for dangerous goods labels, an acceptance check by an airline, and notification to the pilot in command, or Notice to Captain (NOTOC). It is inappropriate to provide significant regulatory relief for the transport of lithium batteries as cargo, especially in large quantities, considering that less hazardous items such as flammable paint and five pounds of dry ice are fully covered under the dangerous goods regulations.

### **Background**

There are two types of lithium batteries used in today's electronic devices; *lithium-ion*, which are typically rechargeable and *lithium-metal*, which are not normally rechargeable. Lithium-ion batteries are typically used to power devices such as laptop computers, cell phones and MP-3 players. Lithium-metal batteries typically power devices such as watches, flashlights and digital cameras.

While the vast majority of lithium batteries are transported safely, when they are damaged, defective, or subjected to an external or internal short circuit, they have the potential to burn violently, emitting flames, sparks and large quantities of smoke. There have been several recent lithium-ion fires, including a March 2008 in-flight fire on a Chicago-to-Tokyo flight and a June 2007 fire in a passenger terminal at the Los Angeles airport. Fortunately, in both cases, the fires were successfully extinguished before substantial damage to property or loss of life could occur. The extent of the problem is further evidenced by the growing number of events listed in the battery incident list maintained by the Federal Aviation Administration (FAA).

Following a fire involving lithium-metal batteries in Los Angeles in 1999, the FAA Technical Center undertook a study of lithium-metal batteries and their response to an external fire source (DOT/FAA/AR-04/26). Among the findings published in June 2004, the FAA concluded that a fire involving one lithium-metal battery would spread to all batteries in a shipment, that the fire would burn violently at a temperature above the melting point of aluminum, that the heat from a suppressed cargo fire (approximately 400 deg. F) would be enough to ignite the batteries, and that ignition and fire would be accompanied by a pressure pulse that could cause the cargo compartment lining of an aircraft to fail. Especially significant was the finding that the traditional aircraft fire suppression agent, Halon 1301, would have no effect on a lithium-metal battery-initiated fire. In effect, damage to a single battery in a shipment of hundreds or thousands could lead to an uncontrollable fire.

After publication of the FAA report, the DOT issued immediate rule-making that banned the bulk shipment of lithium-metal batteries on passenger aircraft, leaving unchanged the provisions for shipment by cargo-only aircraft. Because ALPA has long insisted on *One Level of Safety* for both passenger and all-cargo aircraft, we continue to advocate that PHMSA extend the ban on lithium-metal batteries to cargo-only aircraft until adequate packaging can be developed to protect lithium-metal batteries and the aircraft upon which they are transported.

On January 1, 2009, the vast majority of lithium-metal and lithium-ion batteries were permitted to be shipped internationally on aircraft under packaging instructions 965-970 of the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, providing that certain size, testing, packaging and marking

requirements are met. These requirements, however, do not include dangerous goods labels or notification to the flight crew. Because this carriage standard is of significant importance to the well-being of our membership, ALPA is working through ICAO and the United Nations Committee of Experts on the Transport of Dangerous Goods (UNCOE) to improve the safety of international air transport of hazmat including batteries. Clearly, a strong US PHMSA law is important to that end.

#### **Justification for Change**

Air safety would be greatly enhanced by improved packaging, better testing, a dangerous goods label that would be easily recognizable to ground handlers and emergency responders, an acceptance check to verify that the regulations have been complied with, and notification to the pilot in command that lithium-ion batteries were being carried in accordance with the hazardous materials regulations (HMR).

While lithium-ion batteries can be safely transported once fully incorporated into the dangerous goods regulations, the characteristics of lithium-metal batteries make them unsuitable for transport in bulk quantities aboard passenger or cargo aircraft. In short, there is no safety justification for allowing bulk shipments of lithium-metal batteries to continue to travel on cargo-only aircraft when there is no adequate fire-suppression agent currently available. Accordingly, until adequate HMR packaging standards can be developed to protect all occupants of an aircraft in case a shipment of lithium-metal batteries is exposed to fire of any origin, and to protect the batteries from external damage, we urge PHMSA to ban bulk shipments of lithium-metal batteries on both passenger and cargo aircraft.

On December 4, 2007 the NTSB held a public meeting and issued a report (NTSB/AAR-07/07) of its investigation into the in-flight cargo fire on a UPS cargo-only aircraft on February 7, 2006. A synopsis of the executive summary and list of conclusions from that report is provided as Attachment A. In its report, the NTSB substantiated ALPA's concerns concerning the carriage of lithium batteries by air.

As part of that report, on December 17, 2007 the NTSB issued a letter (Attachment B) to PHMSA with its recommendations A-07-104 through -109. Although the content of the letter epitomizes ALPA's position on this matter, NTSB Recommendations A-07-104 and A-07-109 speak directly to our concerns. In A-07-104, the NTSB recommends that 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."* This recommendation is consistent with the ALPA position to ban bulk shipments until adequate packaging is developed.

Additionally, in NTSB Recommendation A-07-109, PHMSA is urged to *"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."*

### Recommendations

The full regulation of lithium metal and lithium ion batteries will significantly increase the safety of these commodities when shipped aboard aircraft. Class 9 requirements will result in packages that are tested and certified, resulting in a higher quality packaging which will limit the possibility of fire following damage. The Class 9 label on the package will make the shipment more visible to ground crews loading the aircraft, raising their awareness of the potential danger if the shipment is mishandled or damaged. The Class 9 label is recognizable and easily identifiable, and does not rely on text or understanding of the English language. Inclusion in Class 9 will also result in an acceptance check being performed by the operator, which would limit the potential of an improper or damaged package being placed into transport. Although not currently required, major cargo carriers may also choose to remove Class 9 shipments of lithium batteries from the general cargo stream at major sort facilities. Pilot notification of Class 9 shipments of lithium batteries will enable flight crews to communicate hazard information to first responders in the event of an incident.

The testing proposed by ALPA would allow a data-driven approach to be used to determine the appropriate types of packages and quantities for both lithium metal and lithium ion batteries aboard passenger and cargo aircraft. For both lithium metal and lithium ion batteries, it must be shown that the aircraft Halon fire suppression system is sufficient to suppress a fire in a cargo compartment containing lithium batteries until the aircraft has an opportunity to land (as long as 3 hours in Extended Twin Engine Operations (ETOPS)). This ability must be demonstrated both for fires originating with the batteries and for fires from another source in a cargo compartment containing lithium batteries.

We recommend that DOT amend the regulations addressing the safe transport of lithium metal (primary) and lithium ion (secondary) batteries aboard aircraft to accomplish the following:

1. Remove regulatory exemptions for the transport of cargo shipments of lithium-ion batteries; these batteries should be shipped in complete accordance with the dangerous goods regulations, including packaging requirements, labeling, testing, flight crew notification and quantity limitations.
2. Ban bulk shipments of lithium-metal batteries on passenger and cargo aircraft until adequate packaging standards can be developed to protect these batteries from a fire from any source.
3. Incorporate NTSB recommendations concerning lithium batteries into the Hazardous Materials Regulations (HMR).

The regulations should contain the following provisions and be enacted as soon as practicable:

- Regulate lithium metal and lithium ion batteries as Class 9 material, including requiring package testing, labeling, and pilot notification.

- Create very limited exceptions to Class 9 requirements for button cell batteries and batteries installed in equipment, so long as other regulatory provisions limit the danger posed by these batteries.
- Adopt regulatory measures to limit the total quantity of lithium batteries in a package and in a cargo compartment. Specifically, the provision granting relief from the limit of 55 net pounds of dangerous goods per inaccessible cargo compartment for Class 9 materials should not be applied to lithium metal or lithium ion batteries.
- Prohibit the transport of lithium ion batteries in non-Class C compartments (cargo compartments not protected by Halon suppression systems). Non-Class C cargo compartments include the main deck cargo compartment of freighter aircraft and those under-floor cargo compartments on freighter aircraft that have not been converted from Class D to Class C.
- Extend the current ban on cargo shipments of lithium metal batteries on passenger aircraft to cargo aircraft until adequate packaging standards are adopted. Lithium metal batteries packed in or with equipment would continue to be permitted for both passenger and cargo aircraft.

Furthermore, ALPA recommends that the DOT/FAA conduct the following testing and amend the regulations as appropriate:

- Evaluate the effectiveness of metal inner and/or outer packagings for lithium metal batteries. Testing should determine if the residual heat from a Halon suppressed cargo fire would be sufficient to cause auto-ignition of the batteries in metal packagings.
- Determine the effectiveness of metal packagings in preventing the spread of a fire from one package to an adjoining package of lithium metal batteries.
- Determine the effectiveness of an aircraft Halon fire suppression system in suppressing a fire involving the maximum quantity of lithium metal batteries in metal packagings permitted in a cargo compartment.
- Evaluate the effectiveness of an aircraft Halon suppression system on a fire involving the maximum permitted quantity of lithium ion batteries in completed packagings.
- Evaluate the effectiveness of fire resistant packagings, pallets, and/or ULDs in preventing the spread of fire initiated within the package, and in preventing the ignition of batteries following a fire from an outside source.

In conclusion, I want to express ALPA's appreciation for this Committee's interest in the safe transport of lithium batteries as cargo on passenger and all-cargo aircraft. Our recommended actions for incorporation into the PHMSA reauthorization bill will greatly enhance the overall safety of moving these batteries through the transportation system. Thank you for the opportunity to testify today. I would be pleased to address any questions that you may have.

###

**NATIONAL TRANSPORTATION SAFETY BOARD  
Public Meeting of December 4, 2007  
(Information subject to editing)  
Aviation Accident Report  
In-Flight Cargo Fire, United Parcel Service Company Flight 1307,  
McDonnell Douglas DC-8-71F, N748UP  
Philadelphia, Pennsylvania, February 7, 2006  
NTSB/AAR-07/07**

This is a synopsis from the Safety Board's report and does not include the Board's rationale for the conclusions, probable cause, and safety recommendations. Safety Board staff is currently making final revisions to the report from which the attached conclusions and safety recommendations have been extracted. The final report and pertinent safety recommendation letters will be distributed to recommendation recipients as soon as possible. The attached information is subject to further review and editing.

#### **EXECUTIVE SUMMARY**

On February 7, 2006, about 2359 eastern standard time, United Parcel Service Company flight 1307, a McDonnell Douglas DC-8-71F, N748UP, landed at its destination airport, Philadelphia International Airport, Philadelphia, Pennsylvania, after a cargo smoke indication in the cockpit. The captain, first officer, and flight engineer evacuated from the airplane after landing. The flight crewmembers sustained minor injuries, and the airplane and most of the cargo were destroyed by fire after landing. The scheduled cargo flight was operating under the provisions of 14 *Code of Federal Regulations* Part 121 on an instrument flight rules flight plan. Night visual conditions prevailed at the time of the accident.

#### **CONCLUSIONS**

1. The flight crewmembers were properly certificated and qualified under Federal regulations. No evidence indicated any preexisting medical or physical condition that might have adversely affected the flight crew's performance during the accident flight.
2. No evidence was found indicating that fatigue degraded the performance of any of the flight crewmembers on the day of the accident.
3. Examinations of the recovered components revealed no evidence of any preexisting powerplant, structural, or system failures.
4. The flight crew's continued descent to Philadelphia International Airport was not inappropriate given that there was no evidence of abnormalities other than the odor, and that no cockpit alerts had been activated.
5. The increased airflow that resulted from the Fumes Evacuation checklist actions diluted the smoke and inhibited its detection by either the smoke detection system or flight crewmembers and provided the fire with additional oxygen.
6. The aviation industry initiative on smoke, fire, and fumes provides specific guidance on when and how flight crews should respond to evidence of a fire in the absence of cockpit smoke and/or fire warning.

7. The fire on board the accident airplane initiated as a smoldering fire.
8. The fire was detected by the airplane's smoke and fire detection system after the fire breached a cargo container, at which time, it proceeded to spread, and the growth of the fire after landing was fed by air entering through open doors and burnthrough holes.
9. The exact origin and cause of the in-flight fire on board the airplane could not be determined due to the destruction of potentially helpful evidence; however, available evidence suggests that the fire most likely originated in container 12, 13, or 14.
10. The current certification test standards and guidance for smoke or fire detection systems on board many aircraft are not adequate because they do not account for the effects of cargo containers on airflow around the detection sensors and on the containment of smoke from a fire inside a container.
11. The threat from cargo fires could be mitigated by the installation of fire suppression systems.
12. Flight crews on cargo-only aircraft remain at risk from in-flight fires involving both primary and secondary lithium batteries.
13. The emergency response for this accident was timely.
14. Some aircraft rescue and firefighting personnel are not adequately trained on the use of the high-reach extendable turret with skin-penetrating nozzle, reducing the effectiveness of the device in fighting interior aircraft fires.
15. Philadelphia International Airport aircraft rescue and firefighting personnel were not familiar with the accident airplane's main cargo door, which adversely affected their ability to access the airplane's interior to fight the fire.
16. The availability of accurate and complete airplane diagrams would improve aircraft rescue and firefighting personnel's knowledge and familiarity with fleet configurations and would facilitate emergency response operations.
17. A floor level emergency exit and when appropriate equipped with an evacuation slide would enable more efficient emergency egress for airplane occupants than cockpit window exits, and the associated, instructional placarding of such an exit would assist emergency responders with locating and operating the exit door and accessing the interior of the airplane.
18. United Parcel Service Company (UPS) guidance on hazardous materials information retrieval and dissemination was inadequate, which resulted in UPS personnel not providing emergency responders with detailed information about the hazardous materials on board the airplane in a timely manner.
19. The requirements of 49 *Code of Federal Regulations* 175.33(d) are not adequate because they do not require operators to provide hazardous materials information to emergency responders immediately upon notification of an accident.
20. Testing and incident data indicate that lithium batteries can pose a fire hazard.

21. Because many incidents involving lithium batteries are exempt from reporting requirements, the data regarding such incidents are incomplete, which has prevented a thorough assessment of the causes of these failures and the risks associated with transporting lithium batteries.
22. An in-depth analysis of the causes of secondary and primary lithium battery failures would improve the safe transportation of these batteries.
23. The Pipeline and Hazardous Materials Safety Administration's August 2007 final rule regarding the transportation of lithium batteries did not establish sufficient levels of safety for air transportation of small secondary lithium batteries (no more than 8 grams equivalent lithium content).

#### **PROBABLE CAUSE**

The National Transportation Safety Board determines that the probable cause of this accident was an in-flight cargo fire that initiated from an unknown source, which was most likely located within cargo container 12, 13, or 14. Contributing to the loss of the aircraft were inadequate certification test requirements for smoke and fire detection systems and the lack of an on-board fire suppression system.

#### **SAFETY RECOMMENDATIONS**

As a result of its investigation, the National Transportation Safety Board makes the following safety recommendations:

##### **To the Federal Aviation Administration:**

1. Provide clear guidance to the operators of passenger and cargo aircraft operating under 14 *Code of Federal Regulation* Parts 125, 139 and 91K on flight crew procedures for responding to evidence of a fire in the absence of a cockpit alert based on the guidance developed by the 2004 smoke, fire, and fumes industry initiative.
2. Ensure that the performance requirements for smoke and fire detection systems on cargo airplanes account for the effects of cargo containers on airflow around the detection sensors and on the containment of smoke from a fire inside a container, and establish standardized methods of demonstrating compliance with those requirements.
3. Require that fire suppression systems be installed in the cargo compartments of all cargo airplanes operating under 14 *Code of Federal Regulations* Part 121.
4. Provide guidance to aircraft rescue and firefighting personnel on the best training methods to obtain and maintain proficiency with the high-reach extendable turret with skin-penetrating nozzle.
5. Require airport inspectors to ensure that Part 139 airports with cargo operations include cargo aircraft in their aircraft rescue and firefighting aircraft familiarization training programs.
6. Require cargo operators to designate at least one floor level door when appropriate equipped with an emergency slide as a required emergency exit.
7. Require all emergency exits on cargo aircraft that are operable from the outside to have a 2-inch contrasting colored band outlining the exit.

**To the Pipeline and Hazardous Materials Safety Administration:**

8. 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.

9. Until fire suppression systems are required on cargo-only aircraft, as asked for in Safety Recommendation [3], 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.

10. 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.

11. 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 purposes.

12. 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.

13. 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 [12] are completed.

**To the Cargo Airline Association:**

14. Work with its member airlines and other groups, such as the Air Transport Association, major aircraft manufacturers, and the Aircraft Rescue and Firefighting (ARFF) Working Group, to develop and disseminate accurate and complete airplane Emergency Response diagrams for ARFF personnel at airports with cargo operations.

**PREVIOUSLY ISSUED SAFETY RECOMMENDATION RESULTING FROM THIS ACCIDENT INVESTIGATION**

15. Safety Recommendation A-06-65 was issued on September 25, 2006, and is classified "Open - Acceptable Response."

**PREVIOUSLY ISSUED SAFETY RECOMMENDATION CLASSIFIED IN THIS REPORT**

16. Safety Recommendations A-99-80, -82, and -85 (previously classified "Open-Acceptable Response") are classified "Closed-Acceptable Action."

[NTSB Home | Publications](#)

ATTACHMENT B



## National Transportation Safety Board

Washington, D.C. 20594

### Safety Recommendation

**Date:** December 17, 2007

The Honorable Krista L. Edwards  
 Acting Administrator  
 Pipeline and Hazardous Materials Safety Administration  
 U.S. Department of Transportation  
 1200 New Jersey Avenue, S.E.  
 East Building, 2nd Floor, PH  
 Washington, D.C. 20590

**In reply refer to:** A-07-104 through -109

On February 7, 2006, about 2359 eastern standard time,<sup>1</sup> United Parcel Service Company (UPS) flight 1307, a McDonnell Douglas DC-8-71F,<sup>2</sup> N748UP, landed at its destination airport, Philadelphia International Airport (PHL), Philadelphia, Pennsylvania, after a cargo smoke indication in the cockpit. The captain, first officer, and flight engineer evacuated the airplane after landing. The flight crewmembers sustained minor injuries, and the airplane and most of the cargo were destroyed by fire after landing. The scheduled cargo flight was operating under the provisions of 14 *Code of Federal Regulations* (CFR) Part 121 on an instrument flight rules flight plan. Night visual conditions prevailed at the time of the accident.<sup>3</sup>

The National Transportation Safety Board determined that the probable cause of this accident was an in-flight cargo fire that initiated from an unknown source, which was most likely located within cargo container 12, 13, or 14. Contributing to the loss of the aircraft were the inadequate certification test requirements for smoke and fire detection systems and the lack of an on board fire suppression system.

#### Suppression of Secondary and Primary Lithium Battery-Related Fires

A number of secondary lithium batteries, which are described in more detail below, were found loose and in laptop computers and cell phones in the accident debris. No primary batteries were found in the accident debris.

There are basically two types of lithium batteries: secondary (rechargeable) and primary (nonrechargeable). Secondary lithium batteries, which are commonly used in items such as

<sup>1</sup> Unless otherwise indicated, all times are eastern standard time based on a 24-hour clock.

<sup>2</sup> McDonnell Douglas is now owned by the Boeing Commercial Airplane Group.

<sup>3</sup> For more information, see *In-Flight Cargo Fire, United Parcel Service Company Flight 1307, McDonnell Douglas DC-8-71F, N748UP, Philadelphia, Pennsylvania, February 7, 2007*, Aircraft Accident Report NTSB/AAR-07/07 (Washington, DC: NTSB, 2007).

cameras, cell phones, and laptop computers, contain lithium ions (charged molecules) in a flammable liquid electrolyte. Halon suppression systems (the only fire suppression systems certified for aviation) are effective in extinguishing fires involving secondary lithium batteries.

Primary batteries, which are commonly used in items such as watches and pocket calculators, contain metallic lithium that is sealed in a metal casing. The metallic lithium will burn when exposed to air if the metal casing is damaged, compromised, or exposed to sustained heating. Primary lithium battery flammability tests conducted by the Federal Aviation Administration (FAA) have shown that Halon suppression systems are not effective in extinguishing fires involving primary lithium batteries. Both primary and secondary lithium batteries are regulated as hazardous materials for the purposes of transportation.

Currently, the Safety Board is unaware of any fire suppression system that is effective on primary lithium battery fires. Therefore, although the installation of fire suppression systems in all cargo compartments on cargo-only aircraft, as recommended by the Board,<sup>4</sup> would reduce the risks from a fire involving most cargo items, including secondary lithium batteries, this action would essentially have no effect on a primary lithium battery fire. Further, until such time that fire suppression systems are installed on cargo-only aircraft, secondary lithium batteries will continue to typically be transported in compartments without fire suppression systems.

Therefore, the Safety Board concludes that flight crews on cargo-only aircraft remain at risk from in-flight fires involving both primary and secondary lithium batteries. The Safety Board believes that the Pipeline and Hazardous Materials Safety Administration (PHMSA) should 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. The Safety Board further believes that, until fire suppression systems are required on cargo-only aircraft, as asked for in Safety Recommendation A-07-99, PHMSA should require that cargo shipments of secondary lithium batteries, including those contained in or packed with equipment, be transported in crew-accessible locations where portable fire suppression systems can be used.

#### **Retrieval and Dissemination of Hazardous Materials Information**

The captain and first officer were not able to find the notice to captain (NOTOC), which contained information on the hazardous materials on board the airplane, during the evacuation because of the smoke in the cockpit and because they did not know that the flight engineer had moved it. Aircraft rescue and firefighting (ARFF) personnel who entered the cockpit after the evacuation were also unable to locate the NOTOC. When asked for the hazardous materials information, the UPS ramp supervisor stated that he could only provide the locations of the hazardous materials, not their identity, and that the NOTOC on board the airplane was the only source he was aware of that contained this information. About 40 minutes after the airplane landed, ARFF personnel reentered the airplane without knowing whether any potential safety hazards existed, found the NOTOC, and provided it to the incident commander.

---

<sup>4</sup> As a result of this accident, the Safety Board also issued Safety Recommendation A-07-99, which asked the FAA to require that fire suppression systems be installed in the cargo compartments of all cargo airplanes operating under 14 CFR Part 121.

According to UPS management; in the event of an emergency, airport ground personnel were supposed to contact the UPS Flight Control Group in Louisville, Kentucky, to obtain specific information related to hazardous materials on board UPS flights from the Hazardous Materials Information System (HMIS). However, UPS ground personnel at PHL did not contact the UPS Flight Control Group on the day of the accident. Although UPS' HMIS was on line at PHL, UPS ground personnel were only authorized to access information about the quantity and locations of hazardous materials, not their identity. According to Flight Control personnel, once they heard about the accident, they retrieved the hazardous materials information for the flight from the HMIS; however, Flight Control did not provide this information to PHL Airport Operations or UPS ground or ARFF personnel. Additionally, both Airport Operations and ARFF personnel requested the hazardous information from UPS ground personnel at PHL; however, UPS ground personnel did not have access to the electronic system containing the desired information and did not contact UPS Flight Control in Louisville to obtain a copy of it.

Although emergency responders eventually located the NOTOC on the airplane and ARFF efforts were not significantly delayed, UPS personnel's failure to quickly access specific hazardous materials information and provide it to ARFF personnel could have potentially created a safety hazard. The Safety Board concludes that UPS guidance on hazardous materials information retrieval and dissemination was inadequate, which resulted in UPS personnel not providing emergency responders with detailed information about the hazardous materials on board the airplane in a timely manner.

Since the accident, UPS has revised its operations manuals to clarify personnel reporting responsibilities and the role and capabilities of Flight Control, promoting a more proactive approach to emergency response and hazardous materials communication. However, although these changes are an improvement and should result in hazardous materials information being provided in a timelier manner, the Safety Board is concerned that other operators might not have adequate guidance on hazardous materials information dissemination. The Board has previously addressed the importance of providing detailed hazardous materials information to emergency responders in a timely manner in its investigation of the in-flight fire and emergency landing in Newburgh, New York.<sup>5</sup> The investigation revealed that emergency responders did not receive specific information concerning the identity of hazardous materials, their quantities, or the number of packages on the airplane during the firefighting phase of the emergency. Although the unavailability of such information did not affect firefighting efforts, the overall importance of the timeliness in which emergency responders receive specific information about hazardous materials and the potential implications of unawareness were emphasized in the Board's report.

In the Newburgh report, the Safety Board noted that shipping documents are inherently at risk of destruction by fire and that flight crewmembers would most likely be unable to retrieve such paperwork because of the dangers of on-board fire, leaving it to the operator to provide the information to emergency responders. At the time of the Newburgh accident, Federal regulations did not adequately address the need for hazardous materials information on file with an air carrier to be quickly retrievable in a format useful to emergency responders. As a result, the

---

<sup>5</sup> National Transportation Safety Board, *In-Flight Fire/Emergency Landing, Newburgh, New York, Federal Express Flight 1406, Douglas DC-10-10, N68055, September 5, 1996*, Aircraft Accident Report NTSB/AAR-98/03 (Washington, DC: NTSB, 1998).

Board issued Safety Recommendation A-98-80 to the Research and Special Programs Administration (RSPA),<sup>6</sup> proposing that it require air carriers to have a means to quickly retrieve and provide consolidated, specific hazardous materials information to emergency responders, 24 hours per day.

In response, on March 25, 2003, RSPA published a final rule, which revised 49 CFR 175.33 to mandate that air carriers have a copy of the NOTOC at the departure and intended arrival airports and, upon request, make the information available to emergency responders. In an August 18, 2003, letter, the Safety Board stated that it was pleased that RSPA had made it a requirement that hazardous materials information be made available immediately upon request but that it was disappointed that the revision did not address the need for providing such information in a consolidated format. Consequently, the Board classified Safety Recommendation A-98-80 “Closed—Unacceptable Action.”

Because 49 CFR 175.33(d) requires air carriers to make a copy of the NOTOC information available to emergency responders “upon request,” the regulatory requirement suggests that the voluntary transfer of hazardous materials information, without a formal request, is optional for the carrier. In contrast, the International Civil Aviation Organization (ICAO) document, “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.

The ICAO document promotes a proactive approach to the transfer of hazardous materials information during an emergency, which improves the likelihood that this information will get to emergency responders in a timely manner. In the case of this accident, UPS Flight Control personnel’s actions satisfied the intent of the requirements as they are written. Flight Control had the on-board hazardous materials information readily available; however, they stated that they did not volunteer the information because they did not receive a request for it, therefore, they were not obligated to volunteer it, as stipulated by the regulations.

The Safety Board concludes that the requirements of 49 CFR 175.33(d) are not adequate because they do not require operators to provide hazardous materials information to emergency responders immediately upon notification of an accident. Therefore, the Safety Board believes that PHMSA should 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.

---

<sup>6</sup> RSPA no longer exists, and PHMSA has assumed its responsibilities.

### **Air Transport of Lithium Batteries**

As noted, although it could not be determined whether lithium batteries played a role in the UPS cargo fire, public hearing testimony and the continued occurrence of incidents involving these batteries on board airplanes suggest the need for greater attention to the risks posed by transporting these batteries on commercial aircraft. A review of FAA and Consumer Product Safety Commission (CPSC) records shows that the number of both secondary and primary lithium battery-related incidents, many of which involved laptop computer fires that resulted from either internal or external short-circuiting of the secondary lithium batteries, has increased consistently over the years.<sup>7</sup> Since February 2006, the CPSC has recalled more than 9 million laptops containing secondary lithium batteries and has issued additional recalls for other products containing secondary lithium batteries. During the Safety Board's public hearing, the CPSC predicted that more incidents and recalls would occur if the deficiencies were not addressed. Further, the increasing popularity of portable electronic devices suggests that lithium battery-related incidents, particularly those involving secondary lithium batteries, will continue to increase. The Safety Board concludes that testing and incident data indicate that lithium batteries can pose a fire hazard.

In response to recent secondary lithium battery-related incidents and issues addressed during the Safety Board's public hearing, the FAA, Air Line Pilots Administration, and PHMSA all issued safety alerts or advisories in 2007, which addressed smoke and fire hazards, recommended crew actions in the event of a battery fire, the availability of guidance for the safe transport of batteries and battery-powered devices on board aircraft, and proper packing and handling procedures for these batteries.

On August 9, 2007, PHMSA issued new requirements that tightened the safety standards governing the air transportation of both primary and secondary lithium batteries. The final rule prohibits the transport of primary lithium batteries and cells as cargo on passenger-carrying aircraft. Additionally, spare lithium batteries can only be transported as carry-on items. Further, the exemptions for medium primary and secondary lithium batteries were eliminated, and new marking paperwork requirements were added for those batteries transported as cargo by air or vessel. Under this rule, on the basis of the FAA's initial testing of the fire risks posed by secondary lithium batteries and PHMSA's elimination of many of the exemptions for primary and secondary lithium batteries, greater shipments of lithium batteries will be transported by air as declared hazardous materials that will be required to comply with enhanced packaging and identification standards.

The issuance of the safety alerts and advisories and the new, more stringent requirements demonstrate the growing awareness and concern within the Department of Transportation and the airline industry over the air transportation of primary and secondary lithium batteries and electronic equipment containing such batteries. These initiatives will also heighten awareness about the common risks associated with both primary and secondary lithium batteries. Although the Safety Board is encouraged by these efforts, other concerns still remain.

---

<sup>7</sup> Incidents involving small secondary battery-related incidents are not required to be reported, and the reporting level might have increased, in part, as a result of greater awareness of the hazards associated with these batteries.

The FAA currently maintains records of aviation incidents involving batteries and battery-powered devices, including those involving primary and secondary lithium batteries. The records likely do not provide a complete listing because many of the incidents involved lithium batteries that were exempted from incident reporting requirements. As a result, many operators have most likely not reported similar incidents. In addition, although the PHMSA's August 2007 final rule includes a marking and paperwork requirement for small secondary and primary cells and batteries, the new requirement only applies to packages containing 24 or more cells or 12 or more batteries and does not include batteries packed with or contained in equipment. As a result, shipments of batteries and electronic equipment with fewer than 24 cells or 12 batteries, such as laptop computers, are still exempt from reporting requirements, and, therefore, incidents involving such shipments are likely to remain largely unreported.

Consequently, the Safety Board concludes that, because many incidents involving lithium batteries are exempt from reporting requirements, the data regarding such incidents are incomplete, which has prevented a thorough assessment of the causes of these failures and the risks associated with transporting lithium batteries. Therefore, the Safety Board believes that the PHMSA should require commercial cargo and passenger operators to report to the PHMSA 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 purposes. The Safety Board also remains concerned that the causes of secondary lithium battery failures are not well understood or documented. This may be due, in part, to the fact that proper evaluation of failed lithium batteries is not always performed and that, in many cases, these batteries are disposed of before the incident is reported, precluding an accurate analysis of the failures. Regarding primary lithium batteries, although it is understood that physical damage and exposure to heat and fire are major concerns, the impact of clustering several thousand primary batteries on a single pallet or in a single cargo container has not been considered or evaluated. Given that Halon is not an effective suppressant for a primary lithium battery fire, the risk of battery involvement in any type of fire needs to be determined.

Analyzing future secondary and primary lithium battery-related incidents should help determine the causes of the failures and, in turn, allow the most appropriate transportation requirements to be established. Therefore, the Safety Board concludes that an in-depth analysis of the causes of secondary and primary lithium battery failures would improve the safe transportation of these batteries. Therefore, the Safety Board believes that PHMSA should 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 secondary and primary lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items.

The Safety Board is also concerned about the remaining exemptions for small secondary lithium batteries, such as those used to power laptop computers, cameras, cell phones, and other personal electronic devices, which are allowed to be shipped on passenger and cargo aircraft even though these types of batteries have been involved in at least nine aviation incidents. Cargo shipments of small secondary lithium batteries should be subject to the same packaging and identification requirements that apply to medium and large secondary lithium batteries to

increase general awareness of the risks of these batteries and to alert package handlers to exercise greater care when loading and unloading packages containing lithium batteries.

Until the causes of the failures of secondary lithium batteries are understood and effectively addressed, the prudent course of action is to eliminate these exceptions, particularly with respect to packaging and identification. Therefore, the Safety Board concludes that PHMSA's August 2007 final rule regarding the transportation of lithium batteries did not establish sufficient levels of safety for air transportation of small secondary lithium batteries (no more than 8 grams (g) equivalent lithium content). Therefore, the Safety Board believes that PHMSA should eliminate regulatory exemptions for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries (no more than 8 g 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.

Therefore, the National Transportation Safety Board makes the following recommendations to the Pipeline and Hazardous Materials Safety Administration:

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. (A-07-104)

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 lithium batteries, including those contained in or packed with equipment, be transported in crew-accessible locations where portable fire suppression systems can be used. (A-07-105)

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. (A-07-106)

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 purposes. (A-07-107)

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 secondary and primary lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items. (A-07-108)

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. (A-07-109)

The Safety Board also issued recommendations to the Federal Aviation Administration and the Cargo Airline Association.

In your response to the recommendations in this letter, please refer to Safety Recommendations A-07-104 through -109. If you need additional information, you may call (202) 314-6649.

Chairman ROSENKER, Vice Chairman SUMWALT, and Members HERSMAN, HIGGINS, and CHEALANDER concurred with these recommendations.

*[Original Signed]*

By: Mark V. Rosenker  
Chairman



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

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

JUN - 8 2009

The Honorable Corrine Brown  
Chairwoman  
Subcommittee on Railroads, Pipelines  
and Hazardous Materials  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington, DC 20515

Dear Chairwoman Brown:

Thank you for your letter of May 21 regarding the hearing on "Reauthorization of the Department of Transportation's Hazardous Materials Safety Program," held on May 14.

I am pleased to submit these responses to your questions for the record. Please let me know if I can be of further assistance to you or your staff.

Sincerely,

M. Cynthia Douglass  
Acting Deputy Administrator

Enclosures

**MINORITY QUESTIONS:**

**(1) The Department of Transportation has twice considered banning wetlines, but has determined that the benefit of such a ban does not justify the costs. This does not seem to be significant safety issue. Has there been an upswing in so-called wetlines incidents since the detailed research PHMSA did prior to its 2005 withdrawal of a wetlines ban?**

In 1999 PHMSA initiated a rulemaking to consider a prohibition on the carriage of hazardous materials in unprotected product pipelines (wetlines). After extensive analysis, we concluded that the quantifiable benefits accruing from such a prohibition would not justify corresponding costs. Recognizing the hazards of wetlines, we developed a safety strategy focused on working with the petroleum shippers and tank truck carriers to identify voluntary actions to limit the safety risks associated with the transportation of flammable liquids in wetlines.

Based on our review of incident reports, media reports, and other data sources, there has been a significant reduction in the consequences associated with wetlines incidents. During the period from January 1, 2002, to January 1, 2009, no wetlines incidents involving a fatality or injury were reported to PHMSA, nor are we aware of incidents that may have not been reported. Improved outreach, enhanced industry and responder awareness, and better visibility of tank trucks due to the widespread use of reflective tape and have likely resulted in a significant reduction involving collisions into the sides and rears of truck trailers.

Nonetheless, the potential for a high consequence event continues. Therefore, we are conducting a comprehensive review of incident reports and other safety data to determine whether rulemaking action to address the risks associated with the transportation of hazardous materials in wetlines is desirable. New technologies are now available to purge wetlines and the costs of this new equipment are likely on a downward trend. At least one carrier, Sunoco, has replaced all of its cargo tank with this new equipment. This review will include a detailed examination of incident reports involving cargo tanks transporting flammable liquids to assess the severity of the risk. In addition, we will evaluate the effectiveness of existing or emerging technologies to address the risk and identify cost-effective strategies to further reduce the risk.

We will also continue our ongoing efforts to reduce wetlines incidents, including working with the tank truck and petroleum industries to focus on identifying "best practices" for fueling operations, maintenance procedures, and safeguard measures to avoid wetlines incidents and partnering with emergency response organizations to educate industry, first responders, and the public about the possible risks associated with unprotected wetlines.

**(2) The HMTA provides authority for DOT to participate in international hazmat forums. PHMSA has been delegated that authority. In the scope of your mission, how would you characterize the importance of these forums? What can you tell us about your efforts in the international area? While PHMSA currently serves as the competent authority role should be shared among other DOT agencies?**

The United States has historically been a leader in establishing internationally harmonized requirements for the transport of hazardous materials. PHMSA works in coordination with its modal partners – the Federal Aviation Administration, Federal Railroad Administration, Federal Motor Carrier Safety Administration, and the U.S. Coast Guard – to ensure that the requirements of these international regulations mirror the high safety standards of the U.S. Hazardous Materials Regulations (HMR). As a result of these efforts the regulations related to the transport of hazardous materials are substantially harmonized worldwide resulting in enhanced safety, efficient transportation and less burden on US industries who previously were required to comply with complex and in many cases conflicting local, national and regional regulations when transporting hazardous materials in international commerce.

One significant recent example of a U.S.-sponsored initiative that significantly enhanced safety relates to the international requirements relevant to the transport of toxic-by-inhalation (TIH) materials. PHMSA worked extensively over the course of several years to improve the classification, packaging, hazard communication, and transport provisions for TIH materials. The international requirements now are nearly identical to the safety standards established in the HMR for these materials, thereby ensuring a markedly higher level of safety than previously provided internationally. We have also been successful in developing regulatory requirements through the established international forums for new or emerging technologies and chemicals including fuel cell, E85 ethanol/gasoline mixtures and large format lithium batteries used for electric and hybrid vehicles.

PHMSA's current responsibility in serving as the competent authority for the United States falls squarely within the agency's delegated authority and ensures that the Department speaks with one voice on hazardous materials transportation safety issues. The Secretary delegated to PHMSA primary responsibility for developing regulations for the safe transportation of hazardous materials; for all international rulemaking activities affecting the transportation of hazardous materials; and for representing the Department at international meetings where hazardous materials regulations are developed (49 CFR 51.53(b)(2)). A PHMSA representative serves as the head of the U.S. delegation to the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods (UN SCTDG), which develops multimodal regulatory requirements that serve as the basis for the modal regulations such as the ICAO TI. PHMSA's Deputy Associate Administrator for Hazardous Materials Safety has served as the chairman of UN SCTDG for the last 4 years and has been reelected as chairman for the 2009-2010 biennium. PHMSA develops official U.S. positions in consultation with its DOT modal partners and other government agencies (e.g. EPA, OSHA, CPSC, DOS, DOD, etc.) and other stakeholders in preparation for attendance at international forums with the goal of promoting a safe, secure, uniform, and efficient hazardous materials transportation system.

PHMSA's Deputy Associate Administrator for Hazardous Materials Safety has served as one of 17 nominated aviation safety experts worldwide on the ICAO Dangerous Goods Panel (DGP) for approximately 10 years. He has served as the chairman and the vice chairman of the DGP. PHMSA has a leading role within the DGP which oversees amendments to the international regulations that apply to the transport of dangerous goods aboard aircraft (i.e. ICAO Technical Instructions on the Safe Transport of Dangerous Goods by Air). We believe it is critical that the U.S. member be in a position to represent all transport modes (with input/concurrence from each mode) to effectively ensure that the decisions taken by the Panel accurately account for and accommodate the requirements of other modes. This ensures safety across all modes of transport as well as facilitating efficient intermodal transportation.

#### **MAJORITY QUESTIONS:**

**(1) The number of hazmat incidents on water has increased from 6 in 2001 to 98 in 2008. Thankfully, there were no fatalities or injuries as a result of these incidents. Why do you think the number of water incidents increased so dramatically in such a short period of time? What is PHMSA doing to address this?**

PHMSA changed the hazardous materials incident reporting requirements in 2005 to include the reporting of undeclared hazardous materials discovered while in transportation whether or not a release occurred. In addition, previously exempted materials, such as paints with flammable properties, are now included in the reporting requirements. PHMSA increased compliance with incident reporting requirements by actively monitoring reports to the National Response Center, examining media articles, through aggressive enforcement and outreach initiatives, working with the US Coast Guard to ensure incidents at ports are reported and following up and communicating the requirements to companies involved in an incident. This resulted in an overall increase of incident reports received by PHMSA for all modes of transportation.

Over the ten year period 1999 to 2008, there has been an average of 12.4 incidents per year reported for hazardous materials transported by water – excluding undeclared reports. Of the 98 reports that were transported by water in 2008, 77 (78.6%) were undeclared hazardous materials reports. The majority of these reports are from carriers who were notified by the shipper or their agent that containers accepted by the carrier included hazardous materials. A small fraction of the reports were made after containers were inspected at the ports. PHMSA initiated a review of undeclared incident reports and is sharing the reports with the U.S. Coast Guard other modal administrations and the Transportation Security Administration via the Multimodal Hazardous Materials Intelligence Portal.

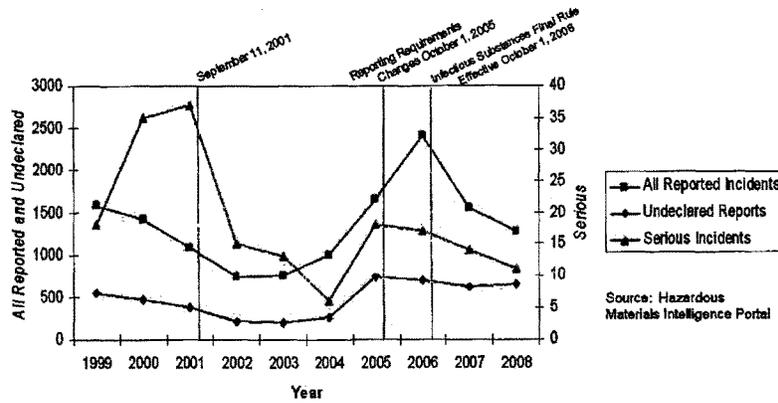
**(2) I noticed that the number of hazmat incidents in aviation tripled between 2002 and 2006? What is PHMSA doing to address this?**

The chart below depicts the ten-year trend of hazardous materials incidents that were reported in the air mode. Following the tragic events of September 11, 2001, there was a significant decrease in reported hazardous materials incidents primarily due to changes affecting industry when shipments were only accepted from known shippers. In 2005, PHMSA changed the

reporting requirements (discussed above) which had an affect on the number and types of incidents reported.

In 2006, PHMSA identified a rise in reported incidents by air caused by a significant increase in incidents involving infectious substances by approximately a thousand reports. This is the same year PHMSA released a final rule: HM-226A Infectious Substances; Harmonization with the United Nations Recommendations. PHMSA was able to reverse this trend within one year through training and outreach initiatives, publication of informational materials and working with shippers and package manufacturers through its hazardous materials enforcement office.

Reported Hazardous Materials Incidents by Air



Finally, prior to 2005 undeclared incident reports were reported when there had been a release of material. Although PHMSA has seen approximately a 20% increase in undeclared hazardous material reports since the reporting requirements were changed in 2005, more than 60% of these reports did not involve a release of materials because they were primarily discovered by the carrier during sorting operations. Taking this into account, actual releases of hazardous materials when transported by air are declining – in 2008 approximately 800 of the reported air incidents involved a release. This is an indication that standards, compliance assistance, outreach, employee training, and enforcement initiatives have been and continue to be effective.

To address releases from packages transported aboard aircraft and further reduce the number of incidents in the aviation mode, PHMSA has initiated a rulemaking in partnership with FAA to enhance the integrity of packaging intended to be used for air transport. We published an ANPRM and hosted a public meeting in 2008. We expect to publish a NPRM this year. Working through the ICAO DGP, PHMSA and FAA developed enhanced packaging instructions which will enter into force in the ICAO TI from April 1, 2011. We are also working through the ICAO DGP to enhance air packaging standards and improve the integrity of air packagings. A proposal was submitted and widely endorsed by the DGP at the WG-09 session of the DGP in May 2009 and it is expected that a final proposal will be adopted in October 2009 for entry into force from January 1, 2011. It is expected that these efforts will drive the number of incidents down further.

**(3) You mention that PHMSA is initiating a rulemaking project to develop additional measures to enhance the safety of lithium battery shipments on aircraft. Please describe in detail the additional measures that PHMSA plans to consider in the rulemaking.**

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Aviation Administration (FAA) have initiated a rulemaking project to comprehensively address the safe transport of lithium cells and batteries. This rulemaking project represents another step in our continuing process to ensure the safe transport of lithium batteries and builds on regulations published in August 2007 and January 2009. The rulemaking is intended to strengthen the current regulatory framework by imposing more effective safeguards, including design testing, packaging, and hazard communication measures for various types and sizes of lithium batteries in specific transportation contexts. Several of the proposals are based on recommendations issued by the National Transportation Safety Board. PHMSA plans to publish an NPRM by December 2009.

The rulemaking will consider the following issues:

1. Elimination of current exceptions for small lithium batteries. Currently, shipments of small lithium batteries are exempted from certain packaging and hazard communication requirements. Instead, packages must conform to minimum packaging requirements and must be identified as containing lithium batteries for which special procedures should be followed in the event the package is damaged. We are considering eliminating certain exceptions for small lithium batteries and imposing more stringent packaging and hazard communication requirements, including shipping papers, package marks and labels, and emergency response information. Elimination of many of the current exceptions would

enhance safety by ensuring that all lithium batteries would be packaged to reduce the possibility of damage to the batteries that could lead to an incident and accompanied by hazard information that would ensure appropriate and careful handling by air carrier personnel and inform transport workers and emergency response personnel of actions to be taken in the event of an emergency.

2. UN design type test results. Currently, all lithium battery and cell types in international commerce must be subjected to a series of tests as specified in the UN Manual of Tests and Criteria. This requirement will become effective on October 1, 2009 in the United States. The tests are intended to ensure that lithium batteries and cells will withstand conditions encountered during transportation. We are considering adopting a requirement for manufacturers to provide evidence of satisfactory completion of the UN design type tests for each lithium battery and cell that is offered for transportation in commerce. The intended effect would be to enhance compliance with the test requirements.
3. Lithium battery shipping descriptions. Currently, all types of lithium batteries are transported using the same UN identification number. However, differences in chemistry, functionality and behavior when exposed to a fire are well documented for different types of batteries. The fact that all types of lithium batteries share the same UN number has the potential to cause significant problems in acceptance procedures for carriers and may unnecessarily hinder or delay the transportation of these products. Thus, we are considering revising the current shipping descriptions to account for different battery types and chemistries and for consistency with shipping descriptions in international transport standards and regulations.
4. Measuring lithium content. We are considering ways to gauge the risk posed by different types of lithium batteries based on the amount of lithium the battery contains. One methodology under consideration is to use a measurement of watt-hours, which is commonly used for electrical applications.
5. Packaging limits. We are considering establishing limits on the number of lithium cells and batteries that may be contained in a single packaging and limits on the number of packages containing cells and batteries that may be transported in a unit load device (ULD), pallet or container; and, for transportation on board aircraft, consider additional limiting requirements for lithium cells and batteries unless transported in a fire resistant container. FAA testing has shown that the number of batteries involved in a fire directly affects the duration of the fire.
6. Recycled batteries. We are considering the adoption of provisions for the transportation of batteries intended for disposal or recycling to ensure that such batteries are protected from damage and short circuiting.
7. Stowage in crew accessible locations. We are considering restricting stowage of lithium batteries on an aircraft to crew accessible locations to permit immediate investigation and response to smoke or fire.
8. Defective batteries. We are considering the development of appropriate safety measures for the air transport of lithium cells or batteries identified by the manufacturer, the Consumer Product Safety Commission, or the Department of Transportation as being defective for safety reasons, or those that have been damaged or are otherwise being returned to the manufacturer.

**(4) The NTSB has recommended that PHMSA require aircraft operators to implement measures to reduce the risks associated with lithium batteries, such as transporting such batteries in fire resistant containers and/or in restricted quantities at any single location on the aircraft. Has PHMSA implemented this recommendation? If not, why not?**

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Aviation Administration (FAA) have initiated a rulemaking project to comprehensively address the safe transport of lithium cells and batteries. Several of the proposals are based on recommendations issued by the National Transportation Safety Board. PHMSA plans to publish an NPRM by December 2009.

Among other issues, the rulemaking will consider establishing limits on the number of lithium cells and batteries that may be contained in a single packaging and limits on the number of packages containing cells and batteries that may be transported in a unit load device (ULD), pallet or container. In addition, specific to the transportation of lithium batteries on board aircraft, we will consider additional limiting requirements for lithium cells and batteries unless transported in a fire resistant container.

PHMSA and FAA also plan to continue to evaluate the risks posed by all types and sizes of lithium batteries with a view towards further risk reduction. Depending on the availability of resources, we plan to address the following areas:

- **Fire behavior.** Test fire behavior of lithium batteries of various sizes and packaging configurations to better understand the transportation risks posed by these batteries and to develop more effective requirements to prevent fires and overheating.
- **Fire resistant containers.** Develop performance standards for fire resistant containers, including fireproof overpacks and ULDs, which can be used for the transportation of lithium cells and batteries of all types on board aircraft.
- **Cargo compartments.** Analyze aircraft cargo compartment configurations and how both current and performance based container designs and their locations may decrease potential risks of fire.
- **Fire detection and suppression.** Analyze possible container internal detection and suppression methods and their effectiveness on the control or containment of lithium battery fires

**(5) The NTSB has recommended that PHMSA require that cargo shipments of secondary lithium batteries, including those contained in or packed with equipment, be transported in crew accessible locations where portable fire suppression systems can be used. Has PHMSA implemented this recommendation? If not, why not?**

The lithium battery rulemaking that will be published later this year will consider restricting stowage of lithium batteries on an aircraft to crew accessible locations to permit immediate investigation and response to smoke or fire.

**(6) I understand that PHMSA has implemented NTSB's recommendation to require all commercial cargo and passenger operators to report all incidents involving lithium batteries, but a second part of that recommendation told PHMSA to require the operators to retain the failed items for evaluation purposes. Evaluating those items will help Federal regulators determine the causes of incidents. But PHMSA did not implement that second half of the recommendation. Does PHMSA plan to implement this second half of the recommendation? If not, why not?**

We agree that an examination of failed batteries and associated electronic devices and equipment will provide valuable data and information as we continue to assess the transportation risks associated with these items. We are working with the FAA and the airlines to establish a cooperative program for effectively securing and preserving evidence and passenger information when incidents occur. We have developed a standard protocol to be used by aircraft operators in the event of an incident. This protocol includes procedures for: (1) immediate reporting of the incident to DOT, (2) preservation of the batteries and/or electronic equipment that failed and transfer to appropriate authorities for analysis and evaluation, and (3) obtaining relevant information from passengers and crew members, including contact information for follow-up interviews as necessary. We plan to post the protocol on our web site and to distribute it widely to the airlines.

**(7) The NTSB has recommended that PHMSA analyze the causes of all thermal failures and fires involving lithium batteries and take appropriate action to mitigate risks. Has PHMSA implemented this recommendation? If not, why not?**

We have completed an analysis of the incidents that have occurred involving lithium batteries and shared our results with NTSB. Our analysis suggests the following likely root causes of these incidents: (1) external short circuits resulting from exposed battery terminals that come into contact with metal objects; (2) internal short circuits resulting from manufacturing defects, poor battery design, or damage to a battery; (3) improper use resulting in 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, such as batteries that were not manufactured to basic industry standards and regulatory requirements, undeclared shipments, or improper packaging.

Incident information gathered by the Federal Aviation Administration (FAA) on 90 incidents occurring from 1991 to 2008 indicates that: 27% of the incidents involved lithium batteries and 68% involved non-lithium batteries. Of the lithium battery incidents, 73% resulted from short-circuiting (external and internal short combined); 12% from charging/discharging; 6% from unintentional activation of devices; and 9% from other causes (malfunction of devices, improper handling of cargo and unknown causes).

On August 9, 2007, PHMSA adopted a final rule to impose stricter and more effective safeguards applicable to lithium batteries, including design testing, packaging, and hazard communication measures. In addition, on January 14, 2009, we adopted a final rule to clarify and enhance safety requirements for the transportation of all types of batteries. Among other provisions, the final rule clarified batteries and battery-powered devices and vehicles must be offered for transportation and transported in a manner that prevents short-circuiting, the potential

of a dangerous evolution of heat, damage to terminals, and, in the case of transportation by aircraft, unintentional activation.

PHMSA and FAA also plan to continue to evaluate the risks posed by all types and sizes of lithium batteries with a view towards further risk reduction. Depending on the availability of resources, we plan to address the following areas:

- Fire behavior. Test fire behavior of lithium batteries of various sizes and packaging configurations to better understand the transportation risks posed by these batteries and to develop more effective requirements to prevent fires and overheating.
- Fire resistant containers. Develop performance standards for fire resistant containers, including fireproof overpacks and ULDs, which can be used for the transportation of lithium cells and batteries of all types on board aircraft.
- Cargo compartments. Analyze aircraft cargo compartment configurations and how both current and performance based container designs and their locations may decrease potential risks of fire.
- Fire detection and suppression. Analyze possible container internal detection and suppression methods and their effectiveness on the control or containment of lithium battery fires.

**(8) The NTSB has recommended that PHMSA eliminate the exemptions that PHMSA has issued for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries. Has PHMSA implemented this recommendation? If not, why not?**

The lithium battery rulemaking that will be published later this year will consider eliminating current regulatory exceptions for shipments of small lithium batteries. Currently, lithium batteries are regulated as a Class 9 material. Class 9 materials present a hazard during transportation, but do not meet the definition of any other hazard class. For transportation by all modes, lithium batteries of all types and sizes must pass the applicable tests in the UN Manual of Tests and Criteria. These tests are designed to ensure that the battery can withstand conditions normally encountered in transportation. In addition, the battery must be designed in a manner that precludes a violent rupture, be equipped with an effective means of preventing external short circuits and a means to prevent reverse current flow if it contains cells that are connected in parallel.

Generally, lithium batteries must be packaged in combination packagings that conform to the performance standards specified for the Packing Group II performance level. In addition, the batteries must be packaged so as to prevent short circuits, including movement that could lead to short circuits. A package containing lithium batteries must be labeled with a CLASS 9 label and must be accompanied by a shipping paper that describes the lithium batteries being transported and emergency response information.

The regulations provide exceptions for lithium batteries based on the size and packing method. Generally, shipments of small lithium batteries are excepted from the packaging and hazard communication requirements outlined above provided the package used is marked to indicate that it contains lithium batteries and special procedures should be followed in the event the

package is damaged, accompanied by a shipping document indicating that the package contains lithium batteries and special procedures should be followed in the event of damage, and the package is capable of withstanding a 1.2 meter drop test in any orientation without damage or release of the contents. The gross weight of the package may not exceed 66 pounds. In the rulemaking, we are considering eliminating this exception and imposing packaging and hazard communication requirements similar to those required for medium and large lithium batteries.

**(9) Are all lithium batteries identified and shipped as hazardous materials, and does that identification indicate the hazards that package contains in the same manner that another package containing a Class 3 or Class 8 hazardous material would indicate to fire fighters or ground handlers at airports? If not, why not? Does PHMSA plan to address this?**

Currently, lithium batteries are regulated as a Class 9 material. Class 9 materials present a hazard during transportation, but do not meet the definition of any other hazard class. A package containing lithium batteries must be labeled with a Class 9 label and must be accompanied by a shipping paper that describes the lithium batteries being transported and provides emergency response information for use by transport workers or emergency response personnel in the event of an incident or accident.

Shipments of small lithium batteries are excepted from the hazard communication requirements outlined above. However, the package must be identified to show that it contains lithium batteries and that special procedures should be followed in the event the package is damaged. This identification takes the form of a marking on the package itself and on the shipping documentation that accompanies the shipment. Thus, the hazard communication requirements for packages containing small lithium batteries do provide an indication of the hazards posed by the shipment for both airport ground handlers and emergency response personnel. However, the differing hazard communication requirements for small lithium batteries and medium and large lithium batteries could result in some confusion, particularly since packages containing small lithium batteries are not required to have a Class 9 label.

The lithium battery rulemaking that will be published later this year will consider whether hazard communication for all shipments of lithium batteries should be consistent.

**(10) Do the hazardous material regulations provide an acceptance check by an airline to verify that the regulations have been complied with (as currently exists for all other hazardous materials, including paint)? Do the regulations require notification to the pilot in command that lithium batteries are being carried on board (as currently exists for all other hazardous materials, including paint)? If not, why not? Does PHMSA plan to address this?**

A hazardous material that is not prepared for shipment in accordance with all applicable regulatory requirements may not be offered or accepted for transportation by aircraft. The regulations require air carriers to ensure that hazardous materials offered to the carrier for transportation are authorized for transportation by air and within the quantity limitations specified for air carriage; described and certified on a shipping paper consistent with regulatory requirements; and marked and labeled in conformance with regulatory requirements. The air

carrier must also inspect the shipment to ensure that the package has no holes, leaks, or has otherwise been compromised. All lithium battery shipments must be marked and/or labeled and accompanied by shipping documentation identifying the shipment for the carrier, except for packages of small lithium batteries that contain fewer than 12 batteries or 24 cells.

Packages containing small lithium batteries are excepted from shipping paper requirements; thus, they typically are not included in the notification to the pilot in command of the hazardous materials that are being transported on the aircraft. In the rulemaking that we initiated with FAA we plan to comprehensively address the safe transport of lithium cells and batteries. Several of the proposals are based on recommendations issued by the National Transportation Safety Board. Among other issues, the rulemaking will consider whether shipments of small lithium batteries should be accompanied by shipping papers and included in the notification to the pilot in command.

**(11) I understand that the International Civil Aviation Organization (“ICAO”) currently prohibits the transportation of recalled lithium batteries by air. In other words, once batteries are identified by a manufacturer as being defective they are not allowed to be shipped by air. Do U.S. regulations also prohibit the shipment of recalled and defective batteries by air? If not, why not and is this an issue that PHMSA plans to address?**

The U.S. regulations do not currently prohibit the shipment of recalled and defective batteries by air; however the regulations do generally prohibit the transport of any device likely to create sparks or create a dangerous quantity of heat, unless packaged in a manner which precludes such an occurrence. In addition, all batteries, including those that are defective or have been recalled, must be transported in accordance with all applicable packaging and hazard communication requirements which include protection against short circuit and a dangerous evolution of heat. Therefore, a recalled battery that cannot effectively be protected against such risks is currently prohibited from transport by air. The United States played a leading role in developing the ICAO provisions applicable to recalled batteries – these provisions were of particular importance to ICAO due to the fact that the ICAO Technical Instructions did not at that time have general provisions addressing risks related to short circuits or a dangerous evolution of heat. Concurrent with our efforts at ICAO, PHMSA worked with the FAA to develop and issue a Safety Advisory Notice to inform the public of the importance of proper packaging and handling of batteries. The PHMSA Safety Advisory Notice can be found at: <http://phmsa.dot.gov/hazmat/regs/safety-notices> and the FAA Safety Advisor Notice can be found at: [http://www.faa.gov/about/office\\_org/headquarters\\_offices/ash/ash\\_programs/hazmat/regulation\\_policy/](http://www.faa.gov/about/office_org/headquarters_offices/ash/ash_programs/hazmat/regulation_policy/).

In the rulemaking that PHMSA plans to publish later this year we will consider whether recalled and defective batteries should be prohibited for transportation by air and the development of appropriate safety measures for transporting recalled or defective batteries by all modes. In addition, PHMSA has implemented a public awareness effort including a “Safe Travel” website (<http://safetravel.dot.gov/index.html>) which addresses issues related to aircraft passenger safety and includes information relative to lithium batteries.

**(12) In 2004, the Department of Transportation's Inspector General recommended that PHMSA establish and implement a process for resolving hazmat regulatory disputes between PHMSA and the Federal Aviation Administration to ensure that the unique safety requirements for shipments of hazmat by air are being effectively addressed. Has PHMSA established and implemented that process and please describe it? What happens if the operating administration disagrees with a PHMSA decision?**

The Hazardous Materials Regulations (HMR) apply to the transportation of hazardous materials by all modes. PHMSA develops new or revised hazardous materials transportation requirements in close consultation with the Federal Aviation Administration (FAA), Federal Railroad Administration (FRA), Federal Motor Carrier Safety Administration (FMCSA), and the United States Coast Guard. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety or security hazard and reducing the probability and quantity of a hazardous material release. Under the HMR, hazardous materials are categorized by analysis and experience into hazard classes and packing groups based upon the risks they present during transportation. The HMR specify appropriate packaging and handling requirements for hazardous materials, and require a shipper to communicate the material's hazards through use of shipping papers, package marking and labeling, and vehicle placarding. The HMR also require shippers to provide emergency response information applicable to the specific hazard or hazards of the material being transported. Finally, the HMR mandate training requirements for persons who prepare hazardous materials for shipment or who transport hazardous materials in commerce. For the most part, these requirements are consistent for all modes of transport. The HMR also include operational requirements applicable to each mode of transportation – the operational requirements are intended to address safety issues that are unique for a particular transport mode. Because most hazardous materials shipments utilize more than one transport mode, it is essential that one agency have the overall responsibility for ensuring that safety requirements are consistent across modes while accommodating unique modal operating environments.

PHMSA develops regulations using a team approach. Each rulemaking team includes technical experts (engineers, chemists, and other physical scientists) who have considerable expertise in identifying and addressing the specific transportation risks of various materials and classes of materials to ensure that shipments can be safely transported throughout the transportation system. Each rulemaking team also includes one or more modal representatives to ensure that mode-specific safety concerns are addressed.

PHMSA has a long and successful history of collaborating with FAA to ensure the safe transportation of hazardous materials on board aircraft. For example, PHMSA and FAA worked together to develop an interim final rule, published in December 2004 and finalized in August 2007, to prohibit the transportation of certain lithium batteries on passenger aircraft. PHMSA and FAA are currently working cooperatively to develop enhanced packaging requirements for the air transport of liquid hazardous materials and measures to ensure the safe transportation of cargo shipments of lithium batteries.

PHMSA and FAA share the overarching safety goal of reducing the risks associated with the transportation of hazardous materials on aircraft. A certain amount of disagreement on strategies

for achieving our safety goals is inevitable, but our rulemaking process ensures that each agency's views and concerns are addressed as regulations are developed and implemented.

PHMSA and FAA developed a comprehensive coordination process for developing policy positions relative to our participating in international standards-setting organizations. This statement of understanding, entitled "International Policy Coordination Process for Hazardous Materials Safety," outlines each agency's responsibilities, the coordination process, and the process for resolving any disagreements. This statement of understanding outlines a dispute resolution process that elevates staff disagreements to the attention of the Associate Administrators of each Administration. If a mutually agreed upon decision can not be reached, the issue is elevated to the Office of the Assistant Secretary for Transportation Policy. Although this document was never signed by the two agency Administrators, it was implemented at the staff level. On three occasions from 2005-2007, the dispute resolution process was utilized with the two agencies working with OST to develop a Department position.

PHMSA and the FAA have begun to update and formalize a memorandum of agreement that clarifies the roles of each agency and updates procedures for coordinating domestic and international hazardous material safety issues in air transport. Our intent is to identify potential actions that will enhance the relationship between FAA and PHMSA as well as measures to improve the effectiveness of both agencies in carrying out their responsibilities relative to the transportation of hazardous materials.

**(13) What specifically has PHMSA done to implement the March 2000 recommendations issued by the Department of Transportation Inspector General in the report entitled "Department wide Program Evaluation of the Hazardous Materials Transportation Programs?"**

Establish an institutional capacity, complementary to the Operating Administrations at the Department wide level, to facilitate program coordination and direction to provide for more effective deployment of DOT's hazardous materials resources.

- The Office of the Assistant Secretary for Policy in the Department of Transportation is tasked with resolving intermodal concerns related to the hazardous materials program.
- In an effort to strengthen the overall Department wide responsibility for hazardous material issues, in November 2005, the Pipeline and Hazardous Materials Safety Administration was created pursuant to the Norman Y. Mineta Research and Special Improvement Act (Public Law 108-426). All of the duties of the Research and Special Programs Administration (RSPA) dealing with hazardous materials transportation were transferred to the Administrator of PHMSA (See 49 U.S.C. § 108 and 49 C.F.R. §§ 1.45 and 1.53.). The action placed hazardous materials responsibilities assigned to PHMSA on an equal par with the other administrations within DOT. The PHMSA staff includes hazardous materials transportation specialists, chemists, engineers, health physicists, outreach specialists and compliance investigators that are experienced not only in domestic modal issues involving hazardous materials transportation, but international transportation issues as well.

**Identify and focus more on high-risk or problem shippers.**

- PHMSA and the modal administrations have worked to better focus resources on high risk problem shippers.
- PHMSA implemented a new risk based enforcement strategy in early 2007 that identifies and targets towards the worst performers and activities posing the greatest transportation risks.

**Improve the use of strike force inspections to cross-train inspectors.**

- PHMSA leads and or participates in more than 40 multi-modal and strike force enforcement activities annually. These activities provide extensive opportunity for cross training of jurisdictional and operational functions with participating personnel.
- PHMSA is enhancing its hazardous materials enforcement training program to keep pace with evolving and emerging technologies and to meet the challenges faced by the modern workforce. We are establishing a Hazardous Materials Enforcement Training Center to focus on the development and delivery of advanced curricula and to create a repository of lessons learned and for hazard materials incident investigations that will train and serve as a knowledge base for Federal, state, and local enforcement professionals.

**Develop a coordinated Department wide outreach program.**

- PHMSA sponsors and coordinates a monthly Hazardous Materials Intermodal meeting to bring together all DOT's modal offices involved with hazardous materials transportation as well as United States Postal Service, Department of Homeland Security's Transportation Safety Administration and United States Coast Guard. These monthly meetings provide a forum for discussing issues and sharing information.
- PHMSA established the Hazardous Materials Safety Assistance Team (HMSAT), to reach out to industry and public safety community to provide face-to-face outreach and compliance assistance in the field of hazardous materials transportation.
- HMSAT conducts two-day seminars and one-day workshops throughout the year for industry and the public safety community. Seminars and workshops provide training for hazmat employers and employees by providing a basic overview of the regulatory requirements – what they are, how they apply, and how to comply with them– for shipping and transporting Hazardous Materials. Representatives from the Federal Aviation Administration, Federal Motor Carrier Safety Administration, Federal Railroad Administration, U.S. Coast Guard, Transportation Security Administration, and State Hazmat Enforcement also participate so we can provide a coordinated and comprehensive approach.
- HMSAT supports DOT's modal offices in their efforts to train state enforcement personnel and participates with the Commercial Vehicle Safety Alliance, the Cooperative Hazardous Materials Enforcement Development and other organizations to enhance inspector training.
- PHMSA has improved outreach aimed at the traveling public by leading DOT efforts in educating passengers on what materials are hazardous and what should not be carried

aboard, or placed in stowed luggage through the SafeTravel Awareness campaign and the SafeTravel Web site, <http://safetravel.dot.gov>.

- PHMSA is working with other DOT modal offices to increase safety awareness and outreach efforts by holding Cargo Tank Summits around the Nation, developing a safety awareness brochure on cargo tank wetlines, *Wetlines Awareness for Emergency Responders*, and a video to increase safety awareness about rollovers.
- PHMSA produces numerous publications and training modules to increase awareness and understanding of the hazardous materials regulations and programs. Publications, such as, *Shipping Batteries Safely by Air: What You Need to Know* and *Hazardous Materials: Employee Resource Book* improve our outreach efforts and help industry, enforcement, emergency response, and other personnel at all levels within the Federal, state, local, and tribal communities ensure the safe transportation of hazardous materials.
- PHMSA and other DOT modal administrations coordinate inspection and investigation efforts focusing resources on high risk and high hazard material transportation and shipments of bulk materials. We participate in numerous joint compliance inspections and investigations throughout the year.
- PHMSA launched the Hazmat Intelligence Portal, a data warehouse and business intelligence tool to help us identify high risk shippers and carriers, focus our enforcement efforts, develop training and outreach opportunities and prioritize and target resources. PHMSA coordinated a team of industry partners and DOT modes: FAA, FMCSA, FRA and other Federal agencies: USCG and TSA to bring about this effort.
- PHMSA is partnering with the International Association of Fire Chiefs to establish an information sharing network for hazmat incident first responders, the National Hazardous Materials Fusion Center. The Fusion Center will serve as a tool for data collection and analysis and a knowledge base of effective practices. Fire fighters and Federal agencies will share information to enhance hazmat responder safety and improve decision making.

**Develop strategies and actions to increase the effectiveness of actives targeted at the human factor contribution to incidents.**

- PHMSA operates an extensive outreach program that places heavy emphasis on hazmat training and education to persons affecting transportation safety.
- PHMSA's resource commitment includes our extremely effective Hazmat Info-Center, Hazmat Safety Assistance Team, and the many advisory and safety notices issued and inspections through our Enforcement program.
- PHMSA strongly believes in raising awareness and adequate and proper training regarding transportation safety to drive down posing risks and reduce incidents caused by human factors.

**Gain a better understanding of the nature of shipper and carrier practices related to undeclared hazardous materials.**

- The issue of undeclared hazmat is a high priority for PHMSA. Shipments of undeclared hazardous materials, particularly in the air mode, pose a significant safety problem because of the potential for improper packing and handling and failure to communicate the inherent hazard of the materials contained to emergency responders and

transportation workers. Certain hazardous materials that are forbidden for air transportation may make their way onto passenger aircrafts and potentially cause immense harm. In the case of accidental release, the crew would not know what the hazardous materials may be or what response measures to take. In the event of a release emergency responders would not have the necessary information to appropriately mitigate potential hazards and to protect themselves and the public.

- Most incidents reported occur in the air or highway modes. Undeclared hazmat shipments usually involved small packages (non-bulk) and is not easily detected. Most incident reports are the results of leaks so the reported database is skewed to certain materials that are corrosive or odoriferous. The actual number of undeclared shipments probably is much more than indicated by the incident report data.
- The incident data related to undeclared hazmat indicate that most shippers are small businesses or individuals who only occasionally engage in shipping hazmat. They are probably generally not aware or very knowledgeable about the hazmat regulations. PHMSA continued to monitor the incidents reported and focus on strategies that can reduce the number over the years, including the use of strike forces and other enforcement tools as well as outreach to educate small businesses, hobbyists and individuals and certain industrial sectors, e.g. home improvement centers and internet sales to improve the general awareness.
- We plan to continue our efforts to reduce the number of incidents. Following are highlights of our ongoing program:
  - PHMSA is working with the Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA) to reduce undeclared hazmat involving returns to a manufacturer or distributor of articles containing hazmat such as equipment powered by internal combustion engines, due to damage, defect or product obsolescence.
  - We are working with the freight express industry such as FedEx and UPS to focus on identifying “best practices” for training and detection of undeclared hazmat shipments to reduce incidents in the future.
  - In collaboration with the modal administrations and other agencies such as TSA, PHMSA is sharing and improving the availability and collection of data necessary to identify areas for outreach and enforcement.
  - We are conducting a more in depth analysis of the incident data on undeclared hazmat shipments to consider improving our data collection, sharing and analysis. For instance we are considering enhancing the data collection form to improve the quality of the data while reducing cost and burden to the agency and the public.
  - Carriers have increased their reporting based on our new incident reporting requirements and our outreach and enforcements initiatives targeted at undeclared shipments.
  - Over the last 2 years, PHMSA has conducted more than 100 investigations (and subsequent aggressive penalties) against shippers of undeclared hazmat shipments.

**Continue to clarify and improve the effectiveness of the hazardous materials regulations.**

PHMSA is engaged in a continuing effort to review the HMR to accommodate improved technologies and new ways of doing business, eliminate outdated or obsolete requirements. For example, since 2000, we have published final rules to: (1) clarify requirements and respond to petitions for rulemaking applicable to cargo tanks and pressure vessels; (2) incorporate a number of special permits into regulations of general applicability; (3) update incorporations by reference of industry consensus standards; (4) incorporate statutorily mandated changes to definitions and terminology; (5) clarify requirements for transporting lighters, including eliminating a burdensome approval process; (6) revise and update the requirements in Part 175 of the HMR applicable to the transportation of hazardous materials on aircraft; and (7) clarify, update, and reformat the conditions under which shippers and carriers may use international standards and regulations in place of the HMR for domestic transportation.

**Review the adequacy of the Performance Oriented Packaging.**

Consistent with PHMSA's risk-based approach to identifying and addressing safety problems, we have focused our recent efforts to evaluate packaging performance on packagings used to transport hazardous materials on board aircraft. Incident data and testing indicate that a number of combination packaging designs authorized for the transportation of liquid hazardous materials are not able to withstand conditions normally present in air transportation. We are currently engaged in a rulemaking to enhance the performance of these packagings when intended for transportation by aircraft and plan to publish an NPRM before the end of the year. We also published a notice of proposed rulemaking on November 30, 2006, that addresses issues related to the performance of specification packagings, including inadequate closures. We expect to publish a final rule in the fall of 2009.

**Increase cooperation with the United States Postal Service (USPS).**

- USPS participates in PHMSA's monthly Hazardous Materials Intermodal meetings which provide a forum for discussing issues and sharing information about hazardous materials transportation.
- USPS is a member of the Battery Action Team and has participated in DOT's public awareness campaign and the development of a multifaceted approach to reducing the risk relative to the transport of lithium batteries and devices containing lithium batteries.
- USPS provided comments during the development and helped with the distribution of a brochure about undeclared shipments, *Do You Know If You're Shipping Hazardous Materials?* This brochure was intended to raise awareness of hazardous materials shipping requirements among small and entry-level hazardous materials shippers who may not be aware of the Hazardous Materials Regulations.
- PHMSA's Web site provides a link to USPS Guidelines and information on hazardous materials shipments.

- PHMSA alerts USPS when incidents involving non-compliant or undeclared hazmat may be transported by USPS or when incidents occur relevant to the USPS.

**Expanding inspection authority to open packages suspected to be non-compliant or containing hidden shipments of hazardous materials.**

On August 10, 2005, the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which included the Hazardous Materials Transportation Safety and Security Reauthorization Act of 2005 (HMTSSRA) as Title VII of the statute, 119 Stat. 1891. Among other provisions, the HMTSSRA authorizes DOT enforcement personnel to open packages to identify undeclared or noncompliant shipments. On October 3, 2008, PHMSA published an NPRM to establish procedures for the inspection and opening of packages to identify undeclared or non-compliant shipments; the temporary detention and inspection of suspicious packages; and the issuance of emergency orders (restrictions, prohibitions, recalls, and out-of-service orders) to address unsafe conditions or practices posing an imminent hazard. These new inspection and enforcement procedures will enhance DOT's ability to respond immediately and effectively to conditions or practices that pose serious threats to life, property, or the environment. We plan to publish a final rule in the spring of 2010.

**(14) In August 2006, PHMSA and TSA signed an annex to the MOU to establish clear lines of authority and responsibility over pipeline security matters. To accomplish this, the annex requires PHMSA and TSA to jointly develop an action plan by February 2007 to implement the annex provisions and program elements. Some program elements of the annex include identifying critical infrastructure, key resources, and risk assessments; strategic planning; developing, guidelines and directives; and conducting inspection and enforcement actions.**

**This Committee is aware of the progress the Office of Pipeline Safety has made to implement the annex provisions and program elements. Has the Office of Hazardous Materials Safety, in cooperation with TSA, developed a plan to address the annex provisions and program elements? If so, what is the current status on your progress to implement the plan?**

The Federal hazardous materials transportation law authorizes the Secretary of Transportation to develop and maintain national safety and security standards for hazardous materials transportation. The Department of Homeland Security (DHS) has broad responsibility and authority for security in all modes of transportation. Under this authority, DHS may identify a security threat to any mode of transportation, develop a measure for dealing with that threat, and enforce compliance with that measure. On September 28, 2004, DOT and DHS signed a memorandum of understanding (MOU) to facilitate the development and deployment of transportation security measures that consider efficiency in the movement of goods and people at the same time that they promote greater safety and security.

On August 9, 2006, PHMSA and TSA signed an annex to the DOT-DHS MOU to delineate clear lines of authority and responsibility and promote communications, efficiency, and non-duplication of effort through cooperation and collaboration in the area of hazardous materials transportation security based on existing legal authorities and core competencies. PHMSA and TSA developed an action plan to address the annex provisions in the fall of 2006. The plan covered training and outreach, research, and rulemaking activities. Many of the initiatives have been completed (including the development of targeted training modules; issuance of recommended security action items for both highway and rail carriers; and publication of DOT and TSA regulations to enhance rail security for shipments of certain high-risk materials). The longer term action items, including research related to vehicle tracking and chlorine dispersion models, are ongoing.

PHMSA and TSA continue to consult and coordinate concerning security-related hazardous materials transportation requirements to assure that they are consistent with the overall security policy goals and objectives established by DHS and that the regulated industry is not confronted with inconsistent security regulations promulgated by multiple agencies. We are working cooperatively on a number of fronts to address hazardous materials transportation security issues, including implementation of security measures mandated by the Implementing Recommendations of the 9/11 Commission Act of 2007.

**(15) What specifically is PHMSA doing to reduce cargo tank rollover accidents?**

The Pipeline Hazardous Materials Safety Administration (PHMSA), the Federal Motor Carrier Safety Administration (FMCSA), the National Highway Transportation Safety Administration (NHTSA) and the National Tank Truck Carrier (NTTC) Association have identified the need to embark on an initiative aimed at reducing cargo tank rollovers. The initiative addresses the need to develop specific driver training materials, enhanced vehicle and equipment design, use of technological advancements such as electronic stability control devices and accident avoidance warning systems, road design and signage and other preventative measures PHMSA developed a safety plan designed to establish a roadmap for reducing cargo tank rollover incidents using an enterprise approach to share responsibilities, build partnerships and bring all interested parties with a stake in the outcome to the table to develop better more innovative solutions and leverage scarce resources. The plan outlines a number of joint initiatives that DOT and industry partners plan to undertake to minimize the likelihood of rollovers including development of a driver training digital resource kit aimed at raising driver awareness of the potential hazards and frequency of rollover incidents, preventative measures and training aids which will be distributed through a broad national outreach and media campaign.

PHMSA and FMCSA partnered with the NTTC to hold a series of three Cargo Tank Rollover Safety Summits. The summits were held in St. Louis, MO, Baltimore, MD, and Oakland, CA during November and December 2007. The "Cargo Tank Roll Stability Study" contracted by the Federal Motor Carrier Safety Administration (FMCSA) with Battelle was completed in 2007 and the results were shared with the industry at the safety summits. This study evaluated four complementary approaches to reducing the number of cargo tank truck rollovers: redesigning the vehicle, redesigning the highways, deploying electronic stability aids, and improving the training of drivers. The Battelle study highlights the benefits, in terms of reduced numbers of

rollover crashes that could be achieved as a result of each approach along with the costs of achieving those benefits.

In brief, the study confirmed what the marketplace has discovered – that each approach can reduce rollovers, but driver training and vehicle stability offer the fastest and most cost-effective methods. Driver training and changes in driver behaviors can greatly and quickly contribute to reducing rollover accidents. Gains in vehicle stability are available for a modest increase in purchase price, and they are cost-effective, at least from the societal point of view. Electronic stability aids, though they address only a particular cause for rollovers, can be quite effective in doing so and add only marginally to the cost of a tractor or trailer. The study also indicated that enhanced driver training can have the largest impact on reducing rollovers by changing behaviors of the human element that was the leading root cause of rollover incidents. PHMSA is working with FMCSA on the development of a rollover training video which will be distributed to motor carriers. The video script is nearing completion and the training video should be in production in the near future.

In addition to the focus on driver training and awareness of rollover potential, PHMSA, FMCSA and NHTSA are currently analyzing studies that show the benefits of electronic stability control (ESC) systems employed on vehicles to prevent rollovers. ESC systems have been proven to be effective to improve a vehicle's handling, particularly at the limits where the driver might lose control of the vehicle. ESC systems in essence apply the brakes when a vehicle is in danger of rolling over due to excessive speed or as a result of a sudden turning, braking, over compensating or other driver errors.

To ensure the widest possible participation in addressing this important issue, PHMSA has met with the insurance industry to solicit their assistance in this effort and to discuss the potential for insurance incentives to promote implementation of rollover prevention measures on the part of carriers.

**(16) The NTSB has recommended that PHMSA develop and implement adequate standards to protect cylinders on tube trailers and the bulk transport of acetylene cylinders, and develop procedures applicable to the unloading of the manifolded cylinders. What is PHMSA doing to address these recommendations?**

On April 9, 2009, PHMSA issued a final rule under Docket Number HM-218E entitled "Hazardous Materials: Miscellaneous Cargo Tank Motor Vehicle and Cylinder Issues; Petitions for Rulemaking." This final rule amends the Hazardous Materials Regulations to require cylinders mounted on motor vehicles or in frames, commonly referred to as tube trailers, to conform to the revised Compressed Gas Association technical bulletin, CGA TB-25 "Design Considerations for Tube Trailers," 2008 edition. The revised CGA consensus standard addresses protective structures for valves and pressure relief devices, and design considerations for the static, dynamic, and thermal loads affecting tube trailers. These design considerations are intended to reduce the likelihood of the tube separating from the trailer and to minimize the unintentional release of hazardous materials in the event of a highway collision, including but not limited to, a rollover accident.

Additionally, as a result of the accidents that led to the NTSB recommendations, on September 6, 2007, PHMSA published a safety advisory for persons who use, operate, fabricate, or otherwise handle mobile acetylene trailers. The notice discussed recent acetylene incidents; requirements in the Hazardous Materials Regulations; national consensus standards issued by the Compressed Gas Association (CGA) and National Fire Protection Association (NFPA); operating procedures, fire mitigation and detection systems; and training of persons who operate, charge, and discharge mobile acetylene trailer systems. We urged companies and workers to review their operating practices to ensure that filling and discharge operations are conducted in the safest possible manner.

We worked with CGA to revise CGA publication G-1.6 entitled "Recommended Practices for Mobile Acetylene Trailer Systems." On August 29, 2008, CGA published the CGA G-1.6, Sixth Edition 2008. Among the major changes included in this addition are provisions to specify that manifolded cylinders must have valve protection that meets the requirements of the Hazardous Materials Regulations and must conform to DOT regulations governing cylinder securement on a trailer; information about installing protective equipment between the acetylene trailer and user's piping system; a provision that the trailer fill station must conform to NFPA 51A, Standard for Acetylene Cylinder Charging plants; and a provision specifying a minimum burst pressure of 500 psig for the flexible transfer hose used for acetylene withdrawal.

We share NTSB's concern about the potential safety hazards posed by a fire resulting from the sudden decomposition of acetylene in an accident or during unloading. We met with CGA to discuss the NTSB Recommendations. As a result, CGA has undertaken an accelerated revision of CGA publication G-1.6 (Recommended Practices for Mobile Acetylene Trailer Systems) to address the safety issues highlighted in the recommendations PHMSA is participating at the International Standard Organization (ISO) in the technical groups responsible for development of new ISO standards (ISO 10961 and 11372) relating to the design, construction, testing, and operation of acetylene cylinder assemblies. We will continue to work with the CGA and ISO to explore all possible options for further improvement of current regulations concerning the transportation and safe operation of acetylene cylinders.



**National Transportation Safety Board**

Washington, D.C. 20594

June 5, 2009

The Honorable Corrine Brown  
Chairwoman  
Subcommittee on Railroads, Pipelines,  
and Hazardous Materials  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
589 Ford House Office Building  
Washington, D.C. 20515-6261

Attention: Ms. Jennifer Esposito

Dear Chairwoman Brown:

Enclosed are the responses of Board Member Deborah A.P. Hersman to questions submitted for the record regarding her testimony at the May 14, 2009, hearing on "Reauthorization of the Department of Transportation's Hazardous Materials Safety Program." If I may be of further assistance to you in this matter, please do not hesitate to contact me at 202-314-6121.

Sincerely,

A handwritten signature in cursive script that reads "Mildred H. Starek".

Mildred H. Starek  
Government and Industry  
Affairs Liaison

Enclosure

**RESPONSES OF HONORABLE DEBORAH A.P. HERSMAN  
TO QUESTIONS SUBMITTED FOR THE RECORD  
REGARDING THE REAUTHORIZATION OF THE DEPARTMENT OF  
TRANSPORTATION'S HAZARDOUS MATERIALS SAFETY PROGRAM**

Question 1: If you make a safety recommendation to DOT and the department studies the issue and comes to a different conclusion about the solution or the priority of the recommendation, and NTSB agrees with the DOT conclusion, does NTSB modify its initial recommendation? Has there ever been an instance where NTSB has agreed to modify its initial recommendation?

Answer: The NTSB evaluates all responses to its safety recommendations. If we agree with a recommendation recipient that information provided in a response demonstrates that a safety recommendation is no longer necessary, it can be closed as reconsidered or no longer applicable.

When responses to safety recommendations provide alternate solutions that provide equal or greater levels of safety, we can close safety recommendations as acceptable alternate action.

Question 2: Your testimony focused on lithium batteries as a risk in the aviation industry, and I understand that DOT is looking at this issue now in regard to cargo shipments of these batteries. Can you explain the different types of batteries and the risk posed by each?

Answer: Primary lithium batteries are non-rechargeable and contain metallic lithium encased in a metal container. Metallic lithium is very reactive and ignites when exposed to air. Metallic lithium fires are very difficult to extinguish and cannot be extinguished by Halon. The fire risk from these batteries is high if the metal casing is damaged, thereby exposing the lithium, or if the batteries are exposed to fire.

Secondary lithium batteries are rechargeable and contain lithium ions (charged lithium atoms) suspended in a flammable liquid electrolyte (lithium ion battery) or in a solid polymer (lithium polymer battery). Secondary lithium batteries have been susceptible to spontaneous overheating. The causes for overheating are not clearly understood due to the lack of reporting and analysis of failed batteries. Fires involving secondary lithium batteries can be extinguished with Halon, water, and other common agents.

Question 3: Based on the lithium battery incidents you have seen, has the majority been in flight or on the ground? Were the batteries properly packaged and handled? Of the incidents you have seen, how many have resulted in fatalities?

Answer: Because of the lack of requirements to report lithium battery failures in transportation (until final rulemaking in 2008) and to analyze the cause of lithium battery failures, accident trends and causes have not been definitively ascertained. Because of the extreme dangers from an in-flight fire, the NTSB's focus has been on battery failures and fires during air transport. Much of the information about lithium battery failures has been obtained because of recalls through the Consumer Product Safety Commission. Many of the recalls applied to lithium batteries that spontaneously overheated in personal electronic equipment at various times and circumstances, including non-transportation related circumstances.

Based on investigations conducted by the NTSB, lithium batteries have been mishandled and damaged, as occurred in the 1999 incident at Los Angeles International Airport. Lithium batteries were also improperly packaged, as occurred in the 2004 incident in Memphis, Tennessee. Secondary lithium batteries, particularly in electronic equipment, have overheated for no apparent reason or cause. To date, there have been no known fatalities, although some people have experienced minor burns.

Question 4: Your remarks also highlight the risk posed by the batteries in personal devices, such as cell phones and ipods. What does NTSB recommend to mitigate the risk posed by personal devices? How about for aviation equipment, like black boxes, that contain lithium batteries? Have you examined these risks?

Answer: The NTSB has made 13 safety recommendations to the Federal Aviation Administration (FAA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) on lithium batteries. While the majority of these safety recommendations address lithium batteries as cargo shipments, the NTSB issued 3 safety recommendations related to lithium batteries in checked baggage and electronic devices on passenger aircraft. NTSB recommended that the FAA and PHMSA analyze the cause of battery fires and take necessary action to mitigate the risks associated with them in cargo and in checked baggage, work with industry to develop procedures for the safe transport of these batteries in carry-on and checked baggage, and to establish a process to periodically measure the effectiveness of efforts to educate the traveling public as well as flight crews about the safe carriage of lithium batteries and electronic devices containing these batteries on board passenger aircraft.

Aviation data and voice recorders do not contain any batteries. However, the sealed underwater locator beacons that are attached to these recorders contain small non-replaceable lithium batteries. We are not aware of any incidents involving batteries in the beacons.

Question 5: How many accidents, injuries and fatalities are caused by wet lines every year? How do these safety statistics compare to other risk factors in hazmat trucking? Do you see any safety concerns that pose a greater danger?

Answer: The NTSB has investigated two accidents in 1997 and 1998 involving wet line failures and fatalities, as discussed in my written testimony. Another accident in Mustang, Oklahoma, was inconclusive as to the cause of death being from crash injuries or fire following wet line

failures. Accident statistics involving wet line failures are difficult to assess due to deficiencies in the PHMSA data.

With respect to other risk factors, the loading and unloading of hazardous materials involving highway cargo tanks and railroad tank cars have been the primary safety issues in eight accidents investigated by the NTSB between June 1998 and August 2003, as noted in my written testimony. The eight accidents collectively involved fatalities, injuries, and significant evacuations.

The elimination of wet lines is consistent with safety recommendations that the NTSB has made with regard to improving the performance of valves and rollover protection devices on highway cargo tanks and railroad tank cars. The NTSB believes that the danger from wet lines is at least equal if not greater than the increased performance of valves and rollover protection devices.

Question 6: Are you aware of any safety concerns with regard to the actual retrofitting of tank trucks to install wet line purging equipment on over 25,000 tank trucks? Have you analyzed how these risks, such as the ignition of residual flammable vapor, compare to the actual number of injuries and fatalities solely related to wet lines accidents? Would you consider wet line purging equipment only on "new build" trucks?

Answer: The NTSB believes that purging equipment for wet lines can be safely installed on existing cargo tanks if proper safety procedures are followed.

The NTSB has not analyzed and compared risks such as the ignition of residual flammable vapors with the number of injuries and fatalities solely related to wet lines accidents. However, it is our understanding that design modifications to the purging systems have been made and are being made such that the purging systems can be installed to the internal shut-off valve and thereby eliminate cutting holes in the bottom of the tank.

The NTSB would like to see immediately that all "new build" cargo tanks are required to be equipped with purging systems for wet lines, and that deadlines are set to retrofit all cargo tanks now in service with these purging systems. As advancements in the design and technology for purging systems are developed, the equipment and installation costs of these systems should be reduced.



---

*The safety and security institute of the commercial explosives industry since 1913*

June 4, 2009

The Honorable Corrine Brown  
Chairwoman  
Subcommittee on Railroads, Pipelines, and Hazardous Materials  
Committee on Transportation and Infrastructure  
US House of Representatives  
Washington, DC 20515

RE: Responses to Questions for the Record

Dear Madam Chairwoman:

On behalf of the shipper associations participating in the Interested Parties for Hazardous Materials Transportation, we appreciate the opportunity to testify at the Subcommittee of Railroads, Pipelines, and Hazardous Materials hearing on the reauthorization of the Department of Transportation's hazardous materials safety program.

Pursuant to your letter of May 21, 2009, attached are responses to the questions you requested be submitted for the record.

Respectfully,

A handwritten signature in black ink, appearing to read "Cynthia Hilton", is written over a horizontal line.

Cynthia Hilton  
Executive Vice President

Attachment

*1. Some advocate that modes take independent action to reduce the risk to hazmat transportation. You believe this will lead to consequences that are not in the public interest. Would you elaborate?*

Independent actions by modes to restrict or ban the types and quantities of hazardous materials they are willing to accept is a “not on my watch” approach to risk management. The commerce of hazardous materials will move. If one mode refuses to accept a shipment, it will move by another mode. Risk is not eliminated; it is simply shifted and, in some cases, increased. These modal shifts are not in the public interest.

As an example of this phenomenon, in the late nineties, no United States Coast Guard (USCG) Captain of the Port (COTP) would accept bulk shipments of explosives even though the shipments were in full compliance with the hazardous materials regulations (HMR). While COTPs had successfully zeroed the risk presented by commercial explosives shipments in their spheres of influence, maritime movements of bulk shipments did not cease. Vessels were routed to Canada or Mexico, off-loaded to trucks and then transported overland thousands of miles to destination. At the time, USCG was a component of the US Department of Transportation, and RSPA, PHMSA’s predecessor, did a multi-modal analysis of the COTP practice. The analysis concluded that the system-wide risks from the COTPs actions could be orders of magnitude higher than from allowing unloading in a port closer to the intended destination of the explosive cargo. “This occurs because highway risk (crash and explosives transportation) more than offsets port risk if significant distances are involved.” The report is available at:

[http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/explo\\_transp\\_wp.pdf](http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/explo_transp_wp.pdf)

More recently, some in the aviation community sought an immediate ban of certain explosives shipments from air transportation despite full compliance with the HMR out of concern that no risk should be tolerated in the air mode. This action was taken despite the fact that, after millions of shipments over decades, there has never been a malfunction of these explosives products in transportation by any mode even when some were involved in serious vehicle crashes. The reason is that the HMR prohibit the transportation of these products while armed. These products are essential to gas/oil production. There is no alternative technology to perforate wells. The United States supplies 80% of the world market. These products are delivered worldwide by air. The consequence of the ban would have been short-term energy disruption worldwide, and long-term would have driven US production off shore. In the end, PHMSA worked with the ICAO dangerous goods panel to limit the ban to passenger, but not cargo, aircraft, and to provide a reasonable transition period so that shipments would not be stranded worldwide in locations without appropriate storage or security.

In addition to explosives, there are other hazardous materials, such as aerosols, Cobalt-60 radioactive material and lithium batteries, that have experienced modal transportation impediments, each of which could be addressed by an expert with product specific knowledge.

There needs to be one agency within DOT with authority to take an intermodal approach to hazardous materials transportation. Under 49 CFR 171.8, this “competent authority” is defined as the PHMSA associate administrator. No mode should be able to shut itself off from the risks that we all share as a society in order to receive benefits from hazardous materials. This authority to assess risk system-wide currently rests with PHMSA. While PHMSA should be open to modal concerns, the agency needs to be the final arbiter of what requirements are appropriate to prevent “unreasonable” risks to health, safety or property.

*2. Some believe that your position on the OSHA/DOT overlap is motivated by a desire to avoid regulation. Would you elaborate and describe impacts to safety and commerce presented by the current state of the law?*

At the hearing, it was stated that IME and industry stakeholders support correcting a 1990 clerical error in the HMTA that authorizes duplicative regulatory authority over hazmat transportation to DOT and OSHA because we are attempting to avoid regulation. This canard has been used during other reauthorization cycles.

Restoring the so-called “reverse preemption” effect of the Occupational Safety & Health Act (OSH Act) to the HMTA does not in itself displace OSHA regulations. OSHA rules cannot be displaced unless another agency exercises a regulation that covers the same subject matter.

At the hearing, it was suggested that industry stakeholders want to overturn OSHA rules for emergency response and personal protection equipment. The HMRs do not address response during emergencies. Therefore, these rules, if “reverse preemption” was restored, would not be affected. The purpose of the HMRs is to prevent incidents. Packaging standards underpin the HMRs. All hazmats packaged in accordance with the HMR are presumed to be safe during the normal course of transportation. PHMSA collects incident data to determine if packaging standards, which sometimes include quantity and mode limitations, need to be enhanced. While the HMRs do not direct shippers to be emergency responders, shippers are required to provide information with shipments about the hazards of the products shipped – shipping papers, placards, marks and labels – and contact information to assist the response community in the event of an emergency.

A finding from the 2005 HMTA amendments states that “because of the potential risks to life, property, and the environment posed by unintentional releases of hazardous materials, consistency in laws and regulations governing the transportation of hazardous materials is necessary and desirable.” We agree. Unfortunately, such regulatory consistency has not existed nor is it likely to exist as long as there is a regulatory overlap between DOT and OSHA rules. DOT (through PHMSA) constantly refreshes the HMR in order to remain in harmony with international forums that oversee the commerce of hazmat worldwide. In the 19 years that OSHA has had overlapping authority with PHMSA, it has not updated its hazmat transportation rules, some which predate the enactment of the organic HMTA in 1975.

OSHA’s out-of-date rules include a prohibition on the use of any transportation packaging that does not meet the requirements of the “Hazardous Materials Regulations Board.” The Board was terminated July 1, 1975. OSHA’s rules require hazmat classifications that have not existed since 1990. OSHA’s rules require types of placards which were eliminated in 1978. OSHA’s rules require vehicle attendance standards that are weaker than DOT’s. It is not possible to comply with both OSHA’s rules and those of DOT. If presented with a choice of whether industry should follow these out-dated OSHA rules or those of DOT, we believe that the response community would choose DOT’s rules because these rules have incorporated current standards for safety. As it stands, industry cannot comply with both.

Earlier in this decade, DOT attempted to create a bright line between its hazmat jurisdiction and OSHA’s as a way to address these regulatory conflicts. However, that rulemaking failed because OSHA never agreed to DOT’s parsing of transportation authority between transportation activities at fixed sites (not to include pre-transportation package preparation and loading) for OSHA and those performed by or in the presence of a carrier (and pre-transportation package preparation and loading) for DOT. This was revealed in 2007 when OSHA proposed to update its rules governing the explosives industry – a rulemaking initiated at IME’s request. In its proposed rule, OSHA stated that the negation of the reverse preemption language in the HMTA “granted OSHA statutory authority to regulate working conditions during the handling and transportation of hazardous materials ... includ[ing] working conditions during the actual movement of hazardous material in commerce, as well as during the preparation of hazardous materials prior to movement and the loading, unloading, and temporary storage of hazardous materials incidental to movement.”

Though OSHA proceeded to state in the rulemaking that it had “no current plans to expand its regulations of working conditions during the transportation of hazardous materials,” it proposed a number of requirements different from or in addition to those of DOT. Examples of these requirements include placarding forklifts, trailer modifications, imposing different vehicle fire extinguisher and parking standards, and requiring notice to local authorities each time explosives are transferred from one vehicle to another.

The regulated community cannot simply brush these conflicts aside. The HMTA requires that DOT's training requirements do not conflict with or duplicate those of OSHA. Technically, all stakeholders who train workers to follow DOT's hazard communication requirements, to use the Departments' Emergency Response Guidebook, or to report incidents, are in violation of this statutory provision. The question for Congress is whether safety of responders, the public, and the regulated community from the risks presented by hazardous materials in transportation is better covered by OSHA or by DOT.

We believe that OSHA's out-of-date rules present a safety risk to responders, the public and the regulated community if followed. If the statute remains unchanged, OSHA's rulemaking would have to keep pace with that of DOT. This would require extraordinary effort on OSHA's part, and we are not convinced that it is necessary or that it would succeed. No stakeholder – the public, workers, responders, or the regulated community – would benefit if OSHA's regulations are frequently rendered out of date by the rapid pace of regulatory revision engaged in by DOT.

We recognize that OSHA and DOT have regulatory responsibilities that should be complementary. In order to harmonize requirements, minimize regulatory gaps and duplications, and promote jurisdictional certainty, consistency, and clarity, we support language in the HMTA that would:

- Restore the reverse preemption authority of the OSH Act to the HMTA, and
- Require DOT to consult with all other federal agencies who have fixed facility requirements when DOT seeks to establish requirements for transportation activities performed at such facilities.

*3. Some might confuse a "close, symbiotic" relationship between PHMSA and industry as undue influence. How would you respond?*

"Symbiotic" is used to mean "cooperative or mutually beneficial," and "close" is used to mean "highly regulated." Together these terms are meant to underscore the comprehensiveness of PHMSA's regulatory program. The practical effect of these regulations is that hazardous materials may not be transported by any mode without PHMSA's permission. The terms do not mean that industry has undue influence over the agency. Proof of that can be seen in comments to rules where industry recommendations are treated no differently than any other stakeholder, and may not be accepted for stated reasons.

*4. How could the HMEP grants program be improved?*

"Gross mismanagement and waste" headlined an article in USA Today late last year about PHMSA's HMEP grants program. We have urged oversight and reform of this program for years. Congress attempted to shine some light on the management of the program, adding, as part of the 2005 amendments to the HMTA, a requirement for annual reporting on the allocation and uses of grant funds, the identification of ultimate recipients, and a detailed accounting of all grant expenditures, among other things. To date, only one report for funds disbursed in FY 2005 and used in FY 2006 has been released. That report failed to deliver on the expectation for a retrospective accounting of the use of the funds. The report was prospective and data included could be found from other public sources. Congress also mandated that PHMSA allocate training grants based on the needs of states, and that, in assessing needs, the funds that states are already collecting through their own hazmat fee programs be taken into consideration. PHMSA has never taken a state's own fee collections into account when allocating grants. Finally, the needs of responders for training were underscored time and again at the hearing. Although PHMSA has had authority to partially flex HMEP funds to meet these greater training needs, the agency has never exercised this option.

As noted at the hearing, the regulated community, which funds the grants, and the intended beneficiaries have strong motivations to ensure transparency and accountability from those responsible for managing the HMEP program. To accomplish this we would recommend that:

- HMEP funds be fully flexed at the option of state grantees. We believe more funds will be directed to training;
- PHMSA be directed to take into account state-levied hazmat fees when allocating both planning and training grants; and
- Congress reiterate the requirement for timely, annual reports that provide retrospective, detailed accounting of planning grants, as well as training grants.

These changes will provide the same level of transparency and accountability for planning grants as is now required for training grants. The full funding flex will get PHMSA out of the business of determining state priorities for emergency response training and planning.

*5. Some may interpret your position on "or uses" language to suggest that industry does not want to train contractors. Would you elaborate?*

Anyone who performs a regulated hazmat transportation function should not only be trained, but should be competent, in the performance of that function. Since every "employee", including contractors, has an "employer," the regulated community understood that the responsibility to train and ensure competency rested with an employee's employer. The addition of "or uses" to the definition of "hazmat employer" confuses what was, heretofore, a clear regulatory responsibility. This lack of clarity at best may see the issue of who will shoulder the training obligation addressed in contacts between private parties, and at worst will result in no person taking on the training obligation. The "or uses" language makes the law less clear, less effective, and less safe. If the motivation behind the text is that those who contract for hazmat functions should ensure that the contractor "used" has been trained by his/her employer, such a requirement would be better included in §5107, perhaps in subsection (c), which substantively addresses training certification, not, as currently attempted, in a definitions section.

*6. What are your views on PHMSA's or the Department's hazmat enforcement capabilities?*

It was pointed out at the hearing that PHMSA's enforcement capabilities seem to pale when compared to other entities. It could be asked, for example, why the US Department of Homeland Security (DHS), merits 139 inspectors to oversee security at 6500 chemical facilities, while PHMSA and its modal partners' approximately 575 inspectors are charged to oversee safety and security at upwards of 300,000 regulated entities. Authorization of FTE is not PHMSA's or DHS' to make. In its FY 2008 budget request to Congress, PHMSA expressed concern that its authorized enforcement FTE was below the number the agency estimated it would need to raise its inspection rate to the minimum necessary to maintain a credible enforcement presence. PHMSA's job is particularly challenging, compared to other modes, given the diversity of entities within the regulated community over which PHMSA has primary inspection responsibility. PHMSA has taken steps to compensate with the launch of the Hazmat Intelligence Portal (HIP) last year. The HIP identifies high risk hazardous materials shippers and carriers allowing all DOT hazmat enforcement assets to focus enforcement efforts and compliance outreach opportunities. We are hopeful that this initiative will also help achieve the recommendation to harmonize all agency hazmat enforcement procedures and penalties from DOT's May, 2000 evaluation of its hazardous materials programs. Penalties and procedures should not vary substantially depending upon which DOT agency happens to see the violation. Looking beyond enforcement to all of PHMSA's staffing needs, that agency has reported that "over one-third of hazmat employees will be eligible to retire within [three] years." Only Congress can redirect or readdress staffing inadequacies, and every effort should be made to fill these necessary positions. At the same time, PHMSA should be given credit for the

remarkable record of safety it, in partnership with the regulated community, has achieved with the staffing at its disposal.

*7. It was stated that IME supports a position that enforcement officials may not inspect hazmat packages without notifying the carrier and the shipper. Is this your view?*

It is a misrepresentation of IME's position that enforcement officials should not inspect hazmat packages without notifying the carrier and shipper. Officials should carry out inspections without delay. IME supports the HMTA reauthorization recommendations of the Interested Parties for Hazardous Materials Transportation. Those recommendations include one that would require notification of the shipper and carrier only if the enforcement official exercises authority to remove from and potentially open a package in transportation. The notification to the shipper is necessary because the shipper is the person with knowledge about the package. The notification to the carrier is necessary because the carrier is responsible for the package, its care, custody and control.



**American Trucking Associations**  
950 N. Glebe Road, Suite 200, Arlington, VA 22203

June 3, 2009

The Honorable Corrine Brown  
Chairwoman  
Subcommittee on Railroads, Pipelines, and Hazardous Materials  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington, DC 20515

*Via Facsimile: (202) 226-3475*

Dear Chairwoman Brown:

Thank you for the opportunity to testify before the Subcommittee on Railroads, Pipelines, and Hazardous Materials at the hearing entitled *Reauthorization of the Department of Transportation's Hazardous Materials Safety Program*. This letter responds to your requests for additional information. The responses set forth herein represent policy positions espoused by the American Trucking Associations.

**(1) Hazardous material is transported by all modes. Why is it important to have a one DOT approach to regulate hazmat? Why not have the appropriate modal agency regulate their particular mode?**

The *One DOT* approach to hazardous materials (hazmat) transportation is essential because it is quite common for a shipment of hazmat to be transported by two or more different modes in the course of a single journey from the point of manufacture to its final destination. The *One DOT* approach to hazmat is essential because each hazardous material has its own unique, often complex, characteristics that demand a single set of regulations regardless of the mode of transportation. Uniform classification of hazmat, uniform package markings, common emergency response procedures, and uniform shipping and handling requirements are therefore critical.

Hazardous materials regulation also requires special expertise that is more effectively housed in a central office than with the individual modal administrations. Congress recognized the need for a *One DOT* approach in creating a separate hazmat office as part of the Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA sets the standards for hazmat transportation, which are then administered by the modal administrations through their broader safety programs.

PHMSA recognizes the need for consistency between the laws of the individual states of the United States to facilitate the highest levels of safety while ensuring efficient uninterrupted transportation across our nation by all modes of transport including intermodal or multimodal transport. Through its preemption proceedings, PHMSA has ensured that state and local regulations that depart from the uniform federal regulatory scheme and frustrate the safe transportation of hazardous materials are invalidated.<sup>1</sup>

While the overall approach is for uniformity, when appropriate, the regulations take into account modal specific conditions. For example, the types and quantities of hazmat permitted on passenger aircraft and cargo aircraft are tightly controlled. In addition, requirements for tank trucks take into account worst case physical conditions on the road, and rail tank car provisions take into account accident conditions that might be encountered in rail transport. The *One DOT* approach has accommodated modal differences while retaining consistency.

The transportation of hazmat throughout the global marketplace also is dependent upon consistent regulatory controls and international harmonization is an important part of PHMSA's overall mission. Very few international shipments move by a single mode of transportation. In order to provide a seamless transfer of such cargoes from one mode to another, consistency in the modal regulatory requirements is essential.

Governments throughout the world have recognized that global harmonization of regulatory requirements is the most critical element in achieving efficiency as well as enhancing safety in the transportation of hazmat.<sup>2</sup> To the extent that one agency's requirements vary from another's, costs will rise and safety will be compromised. Packaging manufacturers could be required to comply with multiple and possibly conflicting rules for testing and marking; shippers could face similar problems with regard to labeling and placarding standards; carriers would be less certain that the packages tendered to them meet all necessary regulatory requirements; and, emergency response professionals may be less aware of the precise hazards they are dealing with in the case of a release.

The consistency and uniformity of multimodal, internationally harmonized regulations itself leads to enhanced safety through improved understanding of the regulations and hence a higher level of compliance. Overall leadership of the content of

---

<sup>1</sup> See PHMSA, *Index to Preemption of State and Local Laws* (December 5, 2006) <http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/INDEXTOPREEMPTION.pdf>.

<sup>2</sup> The United Nations Committee of Experts on the Transport of Dangerous Goods has developed the United Nations Model Regulations, which serve as the multi-modal recommendations that enhance the consistency of regulatory controls over the global transportation of hazmat. While the format of the Hazardous Materials Regulations in 49 CFR differs from the UN Model Regulations, the regulatory requirements are harmonized, with some special requirements to meet the unique transportation infrastructure of the United States.

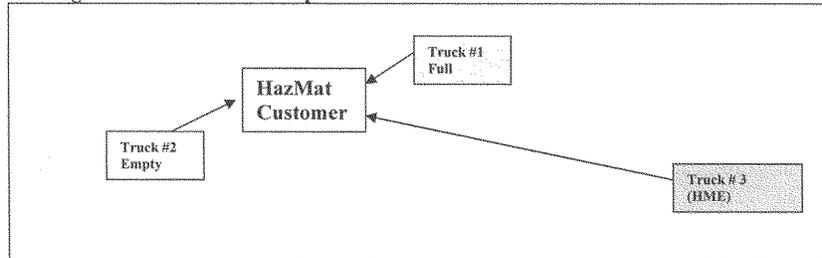
the regulations by a single DOT agency is good government in that it provides for greater safety, efficiency and policy uniformity, as the same experienced engineers, chemists and regulatory specialists can be used for modal specific and multimodal hazmat transport issues.

The efficiency of this system and its proven safety track record would be threatened if responsibility for regulation were to be dispersed among various governmental agencies. The *One DOT* concept allows U.S. industries to transport hazmat in accordance with a well established set of regulations that apply to all modes of transport. If more than one agency is given authority to regulate the transportation of hazmat, regulatory disharmony is bound to be the result. It would frustrate intermodal transportation and would hamper the ability of U.S. industries to offer their products for international transportation according to the globally harmonized system of the United Nations.

**(2) In your testimony, you stated that there has been a 41% reduction in qualified drivers since the initiation of TSA's background check program. What impact does this reduction have on commerce and the movement of hazardous materials?**

The current impact on commerce from the reduction in the number of credentialed hazmat drivers has been masked by weak freight transportation demand as a result of the global recession. Once global economic activity returns to normal, the reduction in the number of credentialed hazmat drivers will lead to higher hazmat transportation costs, as the demand for these freight services increases and the current excess supply of credentialed drivers tightens. This increase in costs will be felt directly by companies that ship hazmat and ultimately will be borne by consumers of these materials.

Another impact from the reduction of credentialed hazmat drivers is an increase in vehicle miles traveled, fuel consumed, and the emissions of carbon and other regulated pollutants. These less obvious impacts result from the fact that many trucking companies no longer require all their drivers to maintain hazardous materials endorsements (HME) to their commercial drivers' licenses. As a result, these companies cannot simply direct the closest empty truck to their customer that is transporting hazmat. Sometimes the closest truck may not be driven by an individual with an HME. Instead, these companies must now determine the closest truck with a driver that has an HME to the customer's location. As a result, trucks have to travel greater distances to pick up freight. The example below illustrates this point as Truck # 3 is routed to the customer for pickup of hazmat, even though Truck #2 is the closest truck with available space.

**Routing to Customer for Pick-Up:**

The resulting increase in empty vehicle miles traveled and fuel consumed will further increase transportation costs and have a negative impact upon the environment.

- (3) In your testimony, you state that a Congressional mandate to regulate cargo wetlines would significantly increase equipment and operational costs. Would a requirement to retrofit tank trucks give you any safety concerns?**

The industry's safety concerns with the retrofit of flammable products cargo tank trailers outweigh our economic concerns. Currently, the only time a petroleum trailer is cleaned and purged of vapors is for repair or alteration work that will require welding. The work can be performed safely by an experienced tank cleaning and tank repair shop.

Regrettably, cargo tank trailer explosions during such repair work have occurred when all vapors were not completely removed. Even after cleaning, vapors can remain between compartments, in hose trays, and in other places within the cargo tank. Last year in Utah a welder was killed when a crude oil cargo tank on which he was working exploded. Vapors remaining in the tank ignited either from the welder's torch or a light he had lowered into the tank. We also are aware of three recent deaths, one in Maryland and two in Florida where petroleum cargo tanks that had most recently hauled water retained flammable vapors that ignited when welding on the tank began.

The potential danger in performing welding, electrical or other major work on flammable trailers has long been a concern of the Department of Transportation. In 2003, DOT considered adding worker deaths or injuries when working on hazmat trailers to the 5800.1 incident reporting requirements. Interestingly, both the industry through National Tank Truck Carriers and labor through the International Brotherhood of the Teamsters supported that proposal. A search performed by DOT found that there were 17 cargo tank facility deaths between 1985 and 1997. In rejecting the proposal to require expanded incident reporting of cargo tank maintenance injuries, DOT reasoned that the collection of the information was already being performed by OSHA. We note that in preparing this response that the OSHA data is not publicly available.

The industry is concerned that a requirement to retrofit 27,000 flammable cargo tanks would result in an increase in the number of deaths or injuries, especially if carriers attempted to perform the retrofit in their own maintenance facilities. There are not nearly enough qualified cargo tank service shops to handle such a massive retrofit campaign; so many carriers would likely perform the retrofits in house.<sup>3</sup>

We are aware of at least 14 cargo tank shop facility deaths since 2000. By comparison, according to the wetlines incident data developed for the Committee and referenced in the May 14, hearing, there has been one death following a wetlines incident, during that same time period. It is industry's great concern and fear that the installation of a wetlines purging system could do more harm than good.

**(4) If wetlines removal equipment were required only on new trailers, what would the impact be on the tank trailer manufacturing industry?**

A requirement to install wetlines purging equipment on new cargo tank trailers could reduce the potential for retrofit-related deaths and injuries; however, it raises at least four additional issues.

1. *Pre-Buy / Low-Buy Scenario* – If applied to new equipment, the requirement to ensure that flammable liquids are not transported in wetlines may lead to a large “pre-buy” of existing trailers, as operators seek to avoid the requirement to purchase new trailers with wetlines purging systems. For example, if a wetlines purging system requirement for new trailers went into effect on January 1, 2012, carriers may stock up on trailers prior to the effective date to save money and to avoid operational issues. Following the pre-buy, the cargo tank manufacturing industry would likely experience a low-buy scenario that would have a severe negative impact on cargo tank sales, potentially forcing manufacturers to layoff workers in response to the reduced sales.

2. *Retention of Older Equipment* – If the wetlines purging requirements increase the cost of new trailers and do not apply to existing trailers, some carriers would keep existing older cargo tank trailers in gasoline service longer than they otherwise would. Traditionally, petroleum trailers are used in gasoline service, then eventually moved into fuel oil service or sold. Retaining older trailers in gasoline service for longer periods of time could have a negative impact on safety. In addition, the decision to retain older trailers and avoid purchasing new trailers would negatively impact tank trailer manufacturers' sales.

---

<sup>3</sup> Any welding on the tank during removal or installation of components would have to be done in a shop holding an “R” stamp from the National Board of Pressure Vessel Inspectors or a “U” stamp from the American Society of Mechanical Engineers. The systems installed on the Sunoco trailers referenced at the hearing were done by “R” stamp shops.

3. *Potential Manufacturer Liability* – Applying the wetlines purging equipment requirement to new trailers only raises the concern that some carriers would operate tanks that do not have the purging system installed. This could create potential liability, as manufacturers are dragged into lawsuits and asked why they didn't install the purging equipment on earlier model trailers.

4. *Lead Time* – We are aware of only one manufacturer that sells a wetlines purging system. The legal requirement to install such a system could bestow a monopoly upon one New York based company that has a patent on the purging system. In order to ensure that this does not disadvantage consumers, any requirement to install wetlines purging equipment should provide manufacturers with sufficient lead time in which to develop competing technology necessary to comply with a ban on transporting flammable liquids in cargo tank wetlines.

\* \* \* \* \*

I again thank you for the opportunity to provide information to the Committee on this issue of national importance. If you have any questions concerning these responses, please contact Richard Moskowitz, ATA's Vice President and Regulatory Affairs Counsel at (703) 838-1910 or [rmoskowitz@trucking.org](mailto:rmoskowitz@trucking.org).

Respectfully submitted,



Robert Petracosta  
Vice President, Con-way Freight and  
American Trucking Associations Hazardous  
Materials Policy Committee Past Chairman

cc: Jennifer Esposito ([jennifer.esposito@mail.house.gov](mailto:jennifer.esposito@mail.house.gov))  
Jennifer Hall ([jennifer.hall@mail.house.gov](mailto:jennifer.hall@mail.house.gov))

**BEFORE THE  
SUBCOMMITTEE ON RAILROADS, PIPELINES AND  
HAZARDOUS MATERIALS  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
UNITED STATES HOUSE OF REPRESENTATIVES  
WASHINGTON, D.C.**

**HEARING OF MAY 14, 2009: REAUTHORIZATION OF THE  
DEPARTMENT OF TRANSPORTATION'S HAZARDOUS  
MATERIALS SAFETY PROGRAM**

**Comments of the  
CARGO AIRLINE ASSOCIATION**

**Stephen A. Alterman, President  
Cargo Airline Association  
1220 19<sup>th</sup> Street, NW, Suite 400  
Washington, DC 20036  
202.293.1030**

**May 28, 2009**

## INTRODUCTION

The Cargo Airline Association (CAA) is the nationwide trade organization representing the interests of the all-cargo air carrier industry. Our members<sup>1</sup> operate a global transportation network specializing in the time-definite pick-up and delivery of a variety of goods.<sup>2</sup> CAA welcomes the opportunity to comment on the reauthorization of the Department of Transportation's Hazardous Materials Safety Program and specifically, on the transport of primary (lithium-metal) and secondary (lithium-ion) batteries by air.

At the outset, it should be noted that the all-cargo industry is 100% committed to safety. As a matter of both public policy and good business practice, safety must continue to play the primary role in assessing the nature of our operations. However, consistent with this commitment, our industry can continue to transport hazardous materials on our aircraft in accordance with existing rules. Indeed, as noted below, the carriage of such commodities is absolutely essential to the shipping community and world commerce generally.

At the same time, we understand the need to engage in a continuing assessment of the carriage of hazardous materials. To this end, before moving forward with any final action, we support more research and data-driven analyses, including an in-depth look at incident history records involving lithium batteries transported as air cargo. We also

---

<sup>1</sup> All-cargo airline members include: ABX Air, Atlas Air, Capital Cargo, DHL Express, FedEx Express, First Air, Kalitta Air and UPS Airlines.

<sup>2</sup> The transportation of freight is the only business of CAA members. No passengers are transported and our business is significantly different from other industry members. In turn, because of the unique nature of our business, both security and safety regulations must be applied to the specific issues raised by the all-cargo model. Put somewhat differently, "one size does not fit all".

understand PHMSA and the FAA have negotiated an “agreement” to develop a Notice of Proposed Rulemaking (NPRM) on secondary lithium batteries transported on an aircraft. The industry would urge Congress to recommend PHMSA involve the industry on the “front-end” of this process, before formal rulemaking proceedings begin.

A final introductory point involves the nature of air commerce. Because air transportation is, by its nature, a worldwide enterprise, the impact on international commerce and the international standards must be taken into account before moving forward.

## **DISCUSSION**

As we look at today’s economic climate and the future of air commerce, it is important to recognize that the transportation of goods containing either primary or secondary batteries (or both) has become a necessary component of today’s global business world. If any legislative action is taken by this Committee, CAA respectfully urges the Committee to balance the needs of commerce against the safety implications and to apply a risk-based approach to these important issues. We would like to help the Committee and the Pipeline and Hazardous Materials Safety Agency (PHMSA) strike that balance by continuing to provide incident history reporting and to support any further research into specific causal factors of incidents involving primary or secondary lithium batteries.

As a practical matter, there are a multitude of issues in assessing the risks from lithium batteries. For example, the fire danger from a lithium battery which is in-use or being charged may be wholly different from one shipped in the proper packaging and labeling and shipped as cargo. Moreover, lithium metal or primary batteries are shipped from the factory or distribution site in a full state of charge (as they are not considered rechargeable). Lithium-ion or secondary are traditionally shipped from the factory or distribution site in a low state of charge. A full risk analysis must be done considering these differences.

As noted above, the global aspect of our business model cannot be overlooked in this debate. As the Committee is aware, the International Civil Aviation Organization (ICAO) has published myriad Technical Instructions aimed at the safe transport of hazardous materials, including lithium batteries. Neither PHMSA nor the Committee should overlook those international standards and the impact of a unilateral change by the United States. Moreover, U.S. certificated operators should not be placed at an economic disadvantage in shipments abroad by placing on it more strict requirements without any specific proven causal factors.

To put some of the industry's operational realities into context, some of the goods transported by all-cargo carriers include technology equipment and electronics such as computers, cameras, watches and also medical devices such as pacemakers which contain either primary (non-rechargeable) or secondary (rechargeable) lithium batteries, or in some cases both. Some of those goods, including medical devices and other time-

sensitive products, must continue to be shipped by air. Also, company materials (commonly known as COMAT) are transported within a carrier's network in order to support ongoing operations. For example, emergency data recorders or "black boxes" contain lithium batteries and are necessary to ensure the safe operation of flight. In addition, in the event of a mechanical aircraft delay, the necessary repair or replacement parts are sent via COMAT. Because of the operational need of flexibility in being able to carry COMAT, the industry recommends the Committee to exempt COMAT from any changes.

## **CONCLUSION**

In view of all the factors noted above, the Cargo Airline Association urges Congress to obtain all the relevant facts, as to balance any identified risks against the needs of global commerce, before taking any final action in this area. For our part, the Association and its member companies are prepared to work with the relevant government entities to arrive at the correct solution to the lithium battery issue.

Thank you very much.



May 13, 2009

**Support a Strong Hazmat Transportation Reauthorization Bill**

Dear Representative:

As the Transportation and Infrastructure Committee begins to consider legislation to reauthorize hazardous material transportation laws, I urge you to ensure that the bill protects the interests of transportation workers and promotes the safety and proper oversight of this critical industry. Attached is a policy statement that was recently and unanimously adopted by TTD's Executive Committee outlining our priorities for hazmat reauthorization.

Given the inherent safety issues associated with the handling and transport of hazardous materials, we are mystified that some in industry are once again asking Congress to preempt the Department of Labor (DOL) and its Occupational Health and Safety Administration (OSHA) from regulating the safety of hazardous materials. Congress specifically rejected this misguided proposal in 2005, but industry's insistence on rolling back DOL safety protections had delayed reauthorization for over a decade. We cannot allow these stonewalling tactics to again succeed in delaying reforms and updates to hazmat regulations.

Hazardous materials operations are currently and correctly regulated by both DOL and the Department of Transportation (DOT). This joint jurisdiction is clearly established in statute and has served to ensure that workers in this industry receive the proper safety protections. Despite claims to the contrary, these regulations are not duplicative or inconsistent and build on the expertise that each agency brings to the table. For example, OSHA regulates the handling of hazardous materials and has issued rules on employee training, requires protective gear, and mandates air quality and communication requirements at fixed facilities. DOT issues and enforces rules on the actual transport of these materials. If OSHA jurisdiction is preempted, current safety rules will disappear leaving workers in this dangerous industry unprotected.

In addition to maintaining joint OSHA and DOT jurisdiction, Congress must use the reauthorization bill to enhance and expand employee training programs. Specifically, Congress must increase funding for hazmat training programs and provide grant recipients with greater flexibility in how training funds may be used. In addition, current training programs for firefighters are limiting and do not allow for proven training methods such as direct and refresher training. I understand that a representative from the International Association of Firefighters (IAFF), a TTD affiliate, will testify tomorrow before the Railroads, Pipelines and Hazardous Materials Subcommittee and will expand on the needs of our nation's firefighters as they relate to responding to hazmat incidents. We hope the Committee will address IAFF's concerns as this bill is drafted.

Transportation Trades Department, AFL-CIO

888 16th Street, NW • Suite 650 • Washington, DC 20006 • tel: 202.628.9262 • fax: 202.628.0391 • www.ttd.org  
Edward Wytkind, President • Patricia Friend, Secretary-Treasurer

1

This reauthorization also presents an opportunity for Congress to ensure that hazardous rail shipments are properly secured. Specifically, the bill should mandate that trains carrying hazardous materials have at least one certified engineer and one certified conductor on board, that tank cars are inspected by certified and well-trained carmen, that speed restrictions in non-signalized territory are enforced, and that better rules are established regarding the placement of hazmat cars in a train makeup.

Improved safety rules regarding the transport of lithium batteries on aircraft must also be implemented. Lithium is flammable, and a shorted lithium battery on board an aircraft can have devastating results. DOT currently prohibits the bulk shipment of lithium metal batteries in the cargo hold of passenger aircraft, and this prohibition should be extended to cargo aircraft. Rules should also be adopted to ensure crew member notification and better labeling of bulk shipment of lithium ion batteries. The Air Line Pilots Association (ALPA), another TTD affiliate, will also present testimony tomorrow to expand on the dangers that lithium batteries present and to offer solutions to this problem.

On behalf of transportation labor, I urge you to pass a strong hazardous materials transportation reauthorization bill that will protect workers and promote safety. Thank you for the opportunity to share our views and concerns. Please do not hesitate to contact me if you have any questions regarding our priorities.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edward Wytkind', with a stylized flourish at the end.

Edward Wytkind  
President

Attachment



**HAZMAT REAUTHORIZATION: ENSURING THE SAFE, SECURE AND EFFICIENT  
TRANSPORTATION OF HAZARDOUS MATERIALS**

The safe, secure and efficient transportation of hazardous materials throughout our country is critical due to the toxic and inherently dangerous nature of these substances. Every day, there are 1.2 million movements of hazardous materials by rail, air, sea, waterways and highways and the volume will only increase. It is therefore imperative that current hazmat laws are strictly enforced and that Congress pass a hazmat reauthorization bill that updates rules and addresses issues that have arisen since the last reauthorization bill in 2005.

During previous attempts to rewrite hazmat laws, industry opposition against sensible reforms delayed the bill for over a decade. In particular, industry lobby groups demanded removal of Occupational Safety and Health Administration (OSHA) coverage of hazmat operations. Fortunately, Congress rejected those efforts and passed a strong bill that retained joint OSHA/Department of Transportation (DOT) jurisdiction over hazmat transportation and expanded employee training requirements. We hope new attempts to update hazmat laws are not met with the same industry stonewalling tactics.

Hazmat reauthorization must improve safety and security for the men and women who work in dangerous conditions. Specifically, we support the continuation and improvement of employee training programs that provide instruction on the identification of hazardous materials, as well as preparation for and response to hazmat incidents. While current law requires hazmat employers to provide training to appropriate employees, this training is often inadequate in content and not universally applied. For example, some in the railroad industry attempt to meet their training responsibilities by distributing a book on hazmat rules to their employees and then conducting a limited and predictable test. Clearly, direct instruction with a true opportunity for feedback is needed to ensure workers are adequately prepared for a hazmat incident. Rail workers are often the first on the scene of a rail transportation hazmat release or incident and their initial response is critical to containing the threat.

Congress must also increase funding for training programs and provide grant recipients with greater flexibility on how training funds can be used. The current Hazardous Materials Instructor Training (HMIT) grant program provides funds to labor-affiliated organizations and other entities to conduct "Train the Trainer" programs. These programs, which train hazmat instructors who in turn will train front-line hazmat employees, have been largely successful and should continue. However, the grant program should be modified to allow recipients to use grant money to defray the costs for front-line workers themselves to attend training sessions and seminars when appropriate.

Our nation's firefighters are also in need of increased and enhanced hazmat training. According to the National Fire Protection Association (NFPA), fire departments in the U.S. received almost 400,000 emergency calls related to hazardous materials in 2007. The NFPA also estimates that 38 percent of firefighters whose duties involve hazmat response lack formal training and only 29 percent of fire

**Transportation Trades Department, AFL-CIO**



departments train all personnel in hazmat response at some level. To close these gaps, Congress must increase funding for firefighter training to allow experienced training organizations to provide comprehensive training free of charge to communities across the nation. In addition, greater flexibility in current training programs should be allowed to conduct direct training, refresher training and distance learning. Finally, training grants should ensure that, at a minimum, firefighters be trained at the "operations" level. This level of training is designed to instruct firefighters on how to contain the release, keep it from spreading and prevent further exposure.

Firefighters also need additional tools to assist in the identification of hazardous materials so they can execute safe and appropriate responses. Specifically, first responders must have access to continuously updated electronic shipping information since physical shipping papers and even placards can be damaged or missing. E-shipping methods should not replace placards and physical shipping paper requirements but instead should serve as a back-up to current notification systems.

Given the fact that at any one time 40 percent of chemical hazmat is being moved by rail, it is critical that steps are taken to secure these movements. Specifically, trains containing hazardous materials must be required to maintain an operating crew of not less than one certified engineer and one certified conductor. Reducing the number of operating crew members will increase the risk for error and accidents to an unacceptable degree. Congress must also ensure that waivers to the current 30 m.p.h. speed restrictions for movement of poisonous by inhalation materials in non-signalized territory are not arbitrarily granted. Instead, these requests should be considered through administrative procedures and subject to a transparent process to ensure that safety is preserved. Rules should also be established regarding train configuration containing hazmat cars. For example, hazmat cars should not be placed close to locomotives or at the rear of the train. Finally, every tank car hauling hazardous material must be inspected by qualified and well-trained carmen who are certified by the FRA.

Public employees within Department of Public Works (DPW) and state Departments of Transportation (state DOTs) who transport hazardous materials by truck or respond to accidental or intentional releases are first-on-the-scene when response is needed. In some jurisdictions, they are considered first responders. Congress must increase funds to train DPW and state DOT road employees to ensure that they receive training appropriate to their duties, such as First Responder Awareness Level training or any other level of training needed as required by the Hazardous Waste Operations and Emergency Response Standard. The First Responder Awareness level of training requires workers to understand what hazardous substances are and the risks associated with them, to appreciate the potential outcomes associated with hazmat releases, to identify and recognize the presence of hazardous substances, to understand their role as a first responder, to recognize the need for additional resources and make appropriate notifications.

In the aviation sector, the transportation of lithium batteries, a hazardous material, is a matter of serious concern. Lithium is flammable and a shorted lithium battery on board an aircraft can have devastating results. In 2005, a DOT rule was implemented that prohibited the bulk shipment of lithium metal batteries in the cargo hold of passenger aircraft. This prohibition should be extended to cargo aircraft as well. In addition, rules should be adopted ensuring crew member notification and better labeling of bulk shipments of lithium ion batteries used in cell phones and laptops. These positions are consistent with current National Transportation Safety Board recommendations.

The reauthorization of the DOT's hazardous materials transportation program provides an opportunity for Congress and the Obama Administration to make our transportation system safer for the public and employees. Lawmakers must pass a new reauthorization bill reflecting the changing and inherently dangerous transportation environment we face. Hazardous materials transportation is a critical responsibility of the nation's transportation companies. The increasing demand for hazmat shipments necessitates a sensible rewrite of federal hazmat laws that enhances safety and security for transportation workers, firefighters and other first responders, and the public. Congress and the President must complete this important legislation in the 111<sup>th</sup> Congress.

**Policy Statement No. W09-04**  
**Adopted March 1, 2009**