INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS

STATEMENT OF

ELIZABETH M. HARMAN

ASSISTANT TO THE GENERAL PRESIDENT

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ON

EXAMINING ISSUES FOR HAZARDOUS MATERIALS REAUTHORIZATION

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Good afternoon Chairman Shuster, Ranking Member Brown and distinguished members of the Subcommittee. Thank you for the opportunity to testify before you today. My name is Elizabeth Harman and I serve as Assistant to the General President for the Hazardous Materials, Weapons of Mass Destruction Training and Grants Administration Division of the International Association of Fire Fighters (IAFF). I am pleased to appear before you today on behalf of IAFF General President Harold Schaitberger and the 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 testify today to the important role the Department of Transportation plays ensuring the safe transportation of hazardous materials and ensuring first responders are able to safely and effectively respond to a hazmat incident should one occur.

I testify today not only as a representative of the IAFF, but also 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 the University of Maryland, Maryland Fire and Rescue Institute. I have also served as a professional fire fighter and paramedic for the City of Fairfax Fire and Rescue Department.

It is from this perspective that I wish to discuss the essential role the Department of Transportation plays to ensure a safe and effective response to hazmat incidents.

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. 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 materials 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 Third Needs Assessment of the U.S. Fire Service, NFPA estimates that sixty-five percent of fire departments responsible for hazmat response have not formally trained all of their responding personnel.

While it is clear from such data that training is needed for new recruits and personnel who have yet to undergo training, it is also worth noting that 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 (HAZWOPER) Standard requires emergency responders to receive annual refresher training "of sufficient content and duration to maintain their competencies." In addition to providing responders the opportunity to maintain their skills, refresher training is vital to familiarize responders with new technology or new hazardous materials which may be used or encountered during a response. One real-world example of the need for refresher training is the recent uptick in transportation of Bakken crude oil. Bakken crude has a higher vapor pressure than other forms of crude, meaning that it will breach its container more quickly than other crude in the event of an accident. Furthermore, Bakken crude is more flammable than other forms of crude. Without refresher training, even a highly-trained first responder may lack this information vital to his or her response.

The reasons for the lack of properly-trained fire fighters vary, although for the most part it is simply a lack of funding. Nationwide, fire department funds are stretched thin, a situation which has been exacerbated by the recent recession. In tight budgetary environments, training is often among the first items to be cut, and hazardous materials training is often seen as less important than structural fire or EMS training.

Unfortunately, the lack of adequately trained personnel in the fire service means that there are significant portions of the country where first responders are not prepared for an incident involving hazardous materials. This 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. Emergency managers quite properly consider worst case scenarios. If there is a hazmat incident in which the first responders lack the training necessary to assess the danger, emergency management officials will err on the side of caution. This means that major highways are shut down and even large scale evacuations are ordered unnecessarily. These everyday occurrences result in millions of dollars of lost productivity.

Given the threat to individuals' personal safety and economic well-being, it is imperative that we ensure fire fighters nationwide receive hazardous materials training.

Providing Appropriate Training

We must also ensure that fire fighters receive the type of training that is most appropriate for their duties. Unfortunately, of the training that is being provided to fire fighters, much is provided at an insufficient level, and in an insufficient manner. As a result, scarce resources are being used to provide training that is of little or no benefit.

OSHA regulations indentify five different training levels for workers who may be required to respond to hazmat incidents as part of their duties: Awareness Level, Operations Level, Hazardous Materials

Technician, Hazardous Materials Specialist, and On-Scene Incident Commander. Each of these training levels has a unique curriculum.

Awareness level training is intended for individuals, such as transportation workers, "who are likely to witness or discover a hazardous substance release" in the course of their duties. Awareness level training teaches these workers to "initiate an emergency response sequence by notifying the proper authorities" which, in most cases, would be a fire department. Those who are trained at the Awareness level "would take no further action beyond notifying the authorities of the release."

Operations level training is intended for the first arriving public safety officer. This training is for workers "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." Such responders do not have specialized hazardous materials mitigation skills. Rather "their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures."

Any fair reading of these straightforward regulations would conclude that Operations level training is the minimum level intended for fire fighters. Providing Awareness level training to fire fighters is not merely inadequate, it is completely off-topic. There is little point in training fire fighters to learn when and how to call the fire department.

Unfortunately, the number of fire fighters receiving Awareness level training, at the expense of Operations level training, is growing. This is especially true in rural fire departments, which may be less well-funded. Because Awareness level training requires fewer hours than Operations level, it is less expensive to provide. In many cases, those providing fire fighters with Awareness level training argue that it is "better than nothing." Without exception, it is not. Fire fighters trained to the Awareness level are frankly unqualified to do anything more than call for help. They may not even know how to determine what the on-scene hazard is, much less "contain the release, keep it from spreading, and prevent exposures." By providing fire fighters with Awareness level training, we run the risk of engendering complacency – of thinking that because the fire fighters have been trained – albeit at an inferior level – we will be protected in a hazmat incident. Nothing could be further from the truth.

Congress has begun to address the inadequacy of hazardous materials training among fire fighters. In MAP-21, Congress required that all training delivered to fire fighters via PHMSA's Hazardous Materials Emergency Preparedness (HMEP) grant program must be at the Operations level or greater. While a positive step in the right direction, training provided via HMEP represents only a tiny fraction of the training received by fire fighters nationwide. Congress should explore ways to encourage states and localities to provide all fire fighters with Operations level training, rather than Awareness level training, regardless of the funding source.

In addition to providing training to fire fighters at the appropriate training level, we must also ensure that training is provided in a manner that engenders real learning. Under the HMEP grant program, the IAFF has received an annual grant to train instructors to deliver hazardous materials training to

emergency responders nationwide, in communities of all sizes. We believe that our training provides the best model for training fire fighters to respond safely and effectively to real-world hazmat incidents.

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 all responders whose duty potentially includes 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 over 3000 instructors who have gone on to provide training to nearly 70,000 emergency responders. We have also recently, due to amendments in MAP-21, begun direct delivery training in addition to administering our train-the-trainer program, allowing us to deliver training in communities which would otherwise have been unable to afford bringing in an instructor.

The IAFF's unique training model avails responders with real-world training in hazardous materials response that few institutions can match, delivered in person in a fire fighter's own community by instructors who are both certified fire instructors and certified hazmat responders. We believe personal, on-site training is superior to web-based education or fixed, remote site instruction. Web-based education, while useful for learning, is not conducive to knowing how to apply such knowledge in the real world. Additionally, by requiring fire fighters to travel to the site of training, fixed site instruction may prove prohibitively expensive for many departments.

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 or challenges facing a particular community, such as a railway or other specific hazardous materials shipping route.

The IAFF model also utilizes highly trained expert fire fighter instructors to actually teach its course. Consequently, because of shared experiences, there is an inherent trust between teacher and student.

Independent evaluations of IAFF training have found its programs to be cost-effective, providing significant hands-on training for a low cost per contact hour, and evaluations have found instruction to be highly effective, with students reporting high post-course confidence and achieving high post-quiz scores. Generally, students entered the course not knowing much of the content, learned a great deal, managed to maintain respectable levels of information retention (as measured by a follow up test), perceived the course material to be useful for their work, promised to take actions reflective of the knowledge gained in the course, and then largely carried through. Trainees rated the course very positively. All of this is indicative of a well-designed and well-taught course with content appropriate for the audience and relevant to its needs and job requirements.

Simply put, the IAFF provides exemplary hazardous materials training at a time when first responders need highly effective, appropriate training more than ever. We encourage the committee to continue funding this valuable program, and to use it as a model when considering expanding training opportunities for fire fighters.

Improving Hazmat ID tools

In addition to improving emergency responder training, 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 critical on a hazmat call. Without the ability to quickly and accurately identify hazardous cargo and numerous critical 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 and soot from the fire may obscure a placard from sight. And, although the information they provide is crucial, it is limited in scope.

New technologies can help first responders better identify hazardous materials and better inform such individuals on how to best respond to an emergency involving such materials.

The Paperless Hazard Communications Pilot Program (HM-ACCESS), established by MAP-21, represents a significant step forward in the development of advanced identification tools. The program, intended to examine the performance, safety and security impacts, and associated benefits and costs, of using electronic systems for communicating hazardous materials shipping paper information, has the potential to advance tools which would significantly enhance the response to a hazmat incident. Providing first responders with access to updated e-shipping papers will help such 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.

As PHMSA continues to develop HM-ACCESS, we believe the program's success will depend upon meeting several key criteria. First, it is crucial to ensure that first responders have ready access to e-shipping information. In the chaos of a hazmat incident, responders do not have the luxury of time. Whatever systems are developed must guarantee that first responders can access information on-demand, twenty-four hours a day, and that such information will be accurate and up-to-date.

Second, HM-ACCESS must conduct pilot tests in all forms of transportation: road, rail, air and sea. Although recent road and rail incidents have garnered national attention, hazmat incidents are not limited to any one or two particular modes of transportation. As a nation, we should not accept the vulnerabilities created through and the risk presented by an incomplete system.

Lastly, we encourage PHMSA to consult with first responders at every step of the system's development. As the intended end-users of such a system, fire fighters recognize the practical, real-world implications of the system's design, function, and limitations. And PHMSA must ensure they consult with rank-and-

file users, not just management, as it is the rank-and-file fire fighter who will likely utilize the system on the ground.

Even with the aid of emerging technology, placards and shipping papers will remain essential tools for fire fighters on the scene of an incident for the foreseeable future. In the world of hazardous materials, redundancy and simplicity of information is not simply convenient, it can be life-saving. For example, the mobile electronic equipment necessary to retrieve electronic shipping information may be prohibitively expensive for some fire departments, particularly those in rural areas. Additionally, spotty wireless reception may preclude some responders from receiving electronic information at the scene of an incident. In such cases, physical, on-site information must be available for first responders to conduct a proper response. It is therefore crucial that new identification tools supplement, rather than replace, current requirements for placarding and shipping papers.

Conclusion

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, improving such training to ensure that first responders may respond to incidents effectively, and enhancing hazardous materials identification tools, we will be better able 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.