

**SURFACE TRANSPORTATION REAUTHORIZATION—  
OVERSIGHT AND REFORM OF THE FEDERAL  
MOTOR CARRIER SAFETY ADMINISTRATION**

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**HEARING**

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION  
AND MERCHANT MARINE INFRASTRUCTURE,  
SAFETY AND SECURITY

OF THE

COMMITTEE ON COMMERCE,  
SCIENCE, AND TRANSPORTATION  
UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

MARCH 4, 2015

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ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

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**SURFACE TRANSPORTATION  
REAUTHORIZATION—OVERSIGHT AND  
REFORM OF THE FEDERAL MOTOR CARRIER  
SAFETY ADMINISTRATION**

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**WEDNESDAY, MARCH 4, 2015**

U.S. SENATE,  
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND  
MERCHANT MARINE INFRASTRUCTURE, SAFETY AND SECURITY,  
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 10:06 a.m. in room SD-253, Russell Senate Office Building, Hon. Deb Fischer, Chairman of the Subcommittee, presiding.

Present: Senators Fischer [presiding], Booker, Nelson, Ayotte, Daines, Cantwell, and Klobuchar.

**OPENING STATEMENT OF HON. DEB FISCHER,  
U.S. SENATOR FROM NEBRASKA**

Senator FISCHER. Good morning. The hearing will come to order.

I am pleased to convene the Senate Subcommittee on Surface Transportation and Merchant Marine Infrastructure Safety and Security for our third hearing entitled “Surface Transportation Reauthorization: Oversight and Reform of the Federal Motor Carrier Safety Administration.” I also would like to take a moment to note that this is our first official hearing, with Senator Cory Booker as the Subcommittee’s Ranking Member.

Welcome, Senator. It is just such a pleasure to have you as Ranking Member and I look forward to working with you on these issues.

Our nation’s economy depends upon safe, timely, and efficient trucking. Nearly 500,000 truckers operate on America’s roads today. From globally recognized companies to smaller owner-operators with a single truck, America’s truckers move billions’ worth of goods and materials each year.

Established in 2000, the Federal Motor Carrier Safety Administration plays a vitally important role in promoting safety on our Nation’s roads. Along with many of my colleagues and the trucking industry, I share the FMCSA’s commitment to increasing the safety of our Nation’s roads. We must never lose sight of this goal.

At the same time, Members of Congress, independent agencies including the GAO, the NTSB, and the DOT Inspector General, and stakeholders, have expressed serious concerns with the agency’s flawed approach in a number of areas. Some of the FMCSA’s

actions over the past several years, however, challenge our shared goal of enhancing safety.

For example, FMCSA issued the final 34-hour restart rule in 2013 with complete disregard for congressionally mandated requirements for the study on the rule's impact. When the study was eventually issued several months late, the sample size was not representative of this diverse industry. In addition, serious concerns were raised about the rule's perverse impact on safety because, in effect, it pushed drivers onto the roads during workers, students, and families' mornings commute.

In 2014, the GAO investigated the methodology behind FMCSA's Compliance, Safety and Accountability program. Inaccurate CSA scores, publicly available online, have cost company contracts and raised insurance rates; all of this has occurred without a clear correlation to increasing highway safety.

When confronted with these findings, FMCSA completely disregarded GAO's recommendations to address flaws in CSA's implementation. Major stockholders, including law enforcement, requested that FMCSA remove CSA scores from the public view.

As Chairman of this Subcommittee, I intend to author legislation to reform the FMCSA and ensure that the process is more inclusive of Congress and stakeholders. My efforts to reform the FMCSA's regulatory process will include two major principles. First, guidance review. FMCSA should complete a periodic review of its current technical and programmatic guidance and provide transparency to the public on this review.

Second, regulatory framework going forward. FMCSA must conduct a more robust cost-benefit analysis that represents carriers from a wide variety of business models. If necessary, the agency should also conduct a real-world study of the proposed regulation.

Most importantly, throughout its process, FMCSA must demonstrate more transparency to Congress and stakeholders. We have to keep that in mind. As the agency is funded through the Highway Trust Fund, transparency is particularly important with regard to funding for the agency's rulemaking.

Though the burden of FMCSA's mission is immense, Congress must reform the agency to ensure higher levels of trust, collaboration, and ultimately more effective regulations to keep our Nation's roads safe.

I would now like to invite my Ranking Member, Senator Booker, to offer opening remarks.

**STATEMENT OF HON. CORY BOOKER,  
U.S. SENATOR FROM NEW JERSEY**

Senator BOOKER. Thank you very much, Senator Fischer. And I am thrilled, frankly, to have you as the Chair of this Subcommittee and know that we can have a robust partnership because we share so many of the same goals.

I think any American shares the goals of making the trucking industry, which is so vital to our nation's economy, not just good and not just meeting minimum standards but, frankly, see what we can do to make it even more robust as a more central aspect of our economy. And this is why I share with my Chair a number of strong feelings, from figuring out ways to look at technology and

how that can aid and impact and improve the industry, to even looking at substantive ways to improve our infrastructure so that the industry and consumers and all of us reap the benefit.

Trucking is simply a vital component of our transportation network. And I look forward to doing everything possible to supporting an effort to make sure that goods are shipped efficiently and safely throughout the entire distribution network. In my state, alone, it is very critical because it provides over 180,000 jobs and contributes upwards of \$700 million in state and Federal taxes. That is a good thing.

Now, with all of that importance and all the opportunities to seize, there are still serious issues about truck safety. I am looking forward to the conversation today and working with my Chair to get to the bottom of very key issues and questions.

We all know what happened in New Jersey last year that brought a lot of this into the spotlight. It was a high-profile accident that occurred, killing one person and injuring several others. According to the NTSB preliminary report on the accident, the truck was traveling 20 miles per hour over the speed limit, and the driver was very close to hitting his daily hours of service limit. There have also being reports that the driver may have been awake for more than 24 hours. This accident brought a flurry of media attention, but we all know this is just one example of so many heartbreaking accidents that involve trucks and the incredible impact they have in devastating people's lives as well as costing the greater public tremendous, tremendous cost.

I live in the Northeast Corridor and this is where New Jersey resides. It is home to one of the most heavily traveled stretches of highway in the country. Each year, nationally, nearly 4,000 people are killed in truck crashes and over 100,000 people are injured. That is unacceptable to every American.

From 2009 to 2012, truck crashes, crash injuries, increased by 40 percent. Increased by 40 percent. And, fatalities increased by 16 percent. This is absolutely unacceptable. This cannot simply be the cost of doing business. We shouldn't just resign ourselves to this harsh and difficult and tragic reality. There are steps that we can take, reasonable steps, common sense stuff, that we can take to address this. There is no place on our roads for tired truckers. And I applaud the Department of Transportation for working to overcome, working really for over a decade, to overcome the challenges that result in fatigue. The rules that we put in place were a compromise and a balance of vital safety objectives. I was against an appropriation rider that was added, frankly, to strip some of those enforcement rules. We must focus on making sure that we are doing the right thing for safety.

I also have other concerns, which I hope we will get to as well, on there. Concerns about the longer and heavier trucks on a road, the minimum insurance levels, and even driver pay; just to name a few.

But I want to thank the Chair, Senator Fischer, for calling this hearing. And I really look forward to hearing from our witnesses today about how we can address these issues and achieve our common goals and aspirations not only in the Senate but, really, aspirations that are common for all Americans.

Thank you.

Senator FISCHER. Thank you, Senator Booker. I do thank you for your comments. You and I share many of the same goals, and I know that we can work together and reach a compromise that is going to make our roads safer, and also use common sense measures so that we don't penalize businesses when they are providing a service and are providing a safe service. So I look forward to that.

Senator BOOKER. For that, I wore my red tie today.

Senator FISCHER. I appreciate that. Go big red.

[Laughter.]

Senator FISCHER. Next, I would like to welcome the panel. I will give the introductions and then we'll start with your information that you have for us.

First, we have Mr. Scott Darling III. Mr. Darling is the Acting Administrator of the Federal Motor Carrier Safety Administration in the U.S. Department of Transportation.

Next, Mr. Joseph Com e?

Mr. COM E. Correct.

Senator FISCHER. Mr. Com e is the Deputy Principle Assistant Inspector General for Auditing and Evaluation in the Office of Inspector General.

Ms. Susan Fleming. Ms. Fleming is the Director of the U.S. Government Accountability Office.

And, the Honorable Christopher Hart. Mr. Hart is the Acting Chairman of the National Transportation Safety Board.

Welcome to you all.

And Mr. Darling, if you could start with your comments please?

**STATEMENT OF HON. T.F. SCOTT DARLING III, ACTING  
ADMINISTRATOR, FEDERAL MOTOR CARRIER SAFETY  
ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION**

Mr. DARLING. Good morning, Chairman Fischer and Ranking Member—

Oh, I'm sorry.

Good morning, Chairman Fischer and Ranking Member Booker and members of the Subcommittee. It is an honor to be here today with you to discuss the GROW AMERICA Act and truck and bus safety.

Safety is the Department of Transportation's top priority. Since FMCSA was established 15 years ago, the number of lives lost in large truck and bus-related crashes has decreased 24 percent. While this represents significant progress, more must be done. Because this is my first appearance before you, let me offer my vision. Simply put, I want every bus driver to transport their passengers safely and every truck driver to make their runs safely before returning home to their families.

To achieve FMCSA's safety mission to reduce crashes and fatalities involving commercial motor vehicles, we are guided by three core principles. First, to raise the bar to entry into the motor carrier industry. Second, to require high safety standard to remain in the industry. And third, to remove high-risk carriers and drivers from our roadways.

We know there is no one-size-fits-all approach to overseeing more than a half a million interstate motor carriers and almost 6 million

commercial motor vehicle drivers that operate on our roadways. That is why provisions in the GROW AMERICA Act are crucial to enhancing our enforcement tools and streamlining our grant programs. We look to these proposals to give us, and our law enforcement partners, increased flexibility and to tailor funding to conditions on the ground. The act builds on FMCSA's continued motor carrier safety efforts by one, expanding locations where inspections may occur and two, employing more effective investigation methods in strengthening the agency's oversight authority.

The GROW AMERICA Act will also allow us to prosecute motor carriers that knowingly and willingly violate an Imminent Hazard Out-of-Service Order issued to protect the traveling public from harm. Because enforcement is important, we are working to focus our limited resources on identifying unsafe carriers from the vast majority of safe ones.

One of the key tools in our toolbox is the Compliance Safety and Accountability program, or CSA. CSA features the Safety Measurement System, or SMS, that helps us prioritize carriers for enforcement interventions. The idea is to intervene with an at-risk carrier to bring them into compliance with safety regulations, or take them off the road before a crash occurs. We have been working with our stakeholders to make sure that CSA and SMS data is thorough and complete.

Finally, we have a number of key safety initiatives underway to ensure that commercial truck and bus drivers are medically fit and free of alcohol and drugs. Nearly 40,000 health officials today are listed on the National Registry of Certified Medical Examiners. We are well underway toward establishing a Drug and Alcohol Clearinghouse to help carriers ensure that drivers and employers are compliant and safe.

We will also soon publish a final rule on electronic logging devices to reduce paperwork and improve efficiency for both carriers and law enforcement officers at the roadside.

Thank you, Chairman Fischer and Ranking Member Booker, for this opportunity to be here today. I look forward to having a full and open discussion with you and my fellow panelists about the common sense ways we can work toward improving highway safety and saving lives.

I look forward to answering your questions.

[The prepared statement of Mr. Darling follows:]

PREPARED STATEMENT OF HON. T.F. SCOTT DARLING III, ACTING ADMINISTRATOR,  
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION, U.S. DEPARTMENT OF  
TRANSPORTATION

Chairman Fischer, Ranking Member Booker, and Members of the Subcommittee, thank you for the opportunity to speak to you today on the Administration's proposal to reauthorize the commercial motor vehicle (CMV) safety program, included in the GROW AMERICA Act.

Safety is the Department of Transportation's top priority. Since the Federal Motor Carrier Safety Administration (FMCSA) was established in 2000, the number of lives lost in large truck and bus related crashes has decreased 24 percent, from 5,620 in 2000 to 4,251 in 2013. While this represents significant progress, more must be done. Every life is precious and the Department is committed to reducing the number of crashes, injuries and fatalities involving commercial motor vehicles.

## **GROW AMERICA Act**

The provisions proposed in the GROW AMERICA Act build on the Agency's three core safety principles: (1) raise the bar to enter the motor carrier industry; (2) require high safety standards to remain in the industry; and (3) remove high-risk carriers, drivers, and service providers from the industry.

The GROW AMERICA Act includes measures that will empower State and local communities to help achieve our shared goals through more streamlined and efficient grant programs. The Act will also build on FMCSA's continued, unprecedented motorcoach safety efforts by expanding locations where inspections may occur and will provide new authority over brokers who arrange passenger transportation. Furthermore, FMCSA proposes to promote safety while also easing the economic stress on long-distance truck and bus drivers, including thousands of small businesses, by ensuring they receive fair compensation for the hours they work.

### *Motorcoach Safety*

Bus travel is increasingly popular because it is a convenient, inexpensive option for many people, including students, groups and families. FMCSA is committed to raising the bar for safety in this highly competitive and rapidly changing industry by employing more effective investigation methods and strengthening the Agency's oversight authorities. Last year, FMCSA stepped up its enforcement efforts, shutting down more than 50 unsafe bus companies that put passengers at risk. FMCSA also increased its efforts to educate the public on safe motorcoach travel.

*Expands Locations for Motorcoach Inspections:* To build on this unprecedented motorcoach safety effort, the GROW AMERICA Act will clarify and expand the locations at which motorcoach inspections may occur. The GROW AMERICA Act will clarify that inspectors may inspect motorcoaches at designated sites equipped with adequate food, shelter and sanitation facilities to accommodate passengers during the process.

*Provides Jurisdiction Over Motorcoach Brokers:* The GROW AMERICA Act will also provide FMCSA with jurisdiction over brokers of passenger transportation. This provision will enhance FMCSA's ability to prevent unsafe bus companies from reorganizing themselves as unregulated "brokers." Additionally, requiring bus brokers to comply with the DOT's commercial registration requirements will help ensure that they are authorized to operate safely in interstate commerce. The change will also provide greater transparency for consumers who are booking bus travel.

*Allows Criminal Prosecution for Unscrupulous Carriers:* Finally, the GROW AMERICA Act will take stronger steps to prevent unscrupulous motor carriers from skirting FMCSA enforcement actions by allowing for criminal prosecution of a person who knowingly and willfully violates an imminent hazard out-of-service (OOS) order issued to prevent the death or serious physical harm to the public.

*Safety-Based Improvements to Compensation for Long-Distance Truck & Bus Drivers:* Many over-the-road truck and bus drivers are compensated by the mile or on a fixed-rate per load. As a result, they are not paid for extended periods of time while waiting for shipments to be loaded or unloaded at shippers' or receivers' facilities. Similarly, over-the-road motorcoach drivers are often not compensated through an hourly wage. As a result, they often face pressure to drive beyond hours-of-service limitations as a matter of economic necessity, risking driver fatigue and jeopardizing highway safety in the process. The GROW AMERICA Act addresses these problems by providing the Secretary authority to issue regulations that would require motor carriers to compensate drivers for detention time and other similar non-driving work periods at a rate that is at least equal to the Federal minimum wage.

### *Improvements to the Motor Carrier Safety Grants*

The GROW AMERICA Act will also streamline and consolidate FMCSA safety grant programs—a change that will reduce redundant grant application submissions, reviews, awards approvals, vouchering and oversight time, and thus increase dramatically efficiencies not only for FMCSA but for its State partners. Among other changes, the Motor Carrier Safety Assistance Program (MCSAP) will be restructured to include the current New Entrant and Border Enforcement grant programs. While the high-priority program will continue under MCSAP, the current safety data improvement grant program will be absorbed into the high-priority program to avoid duplication. In addition, the Commercial Vehicle Information Systems and Networks (CVISN) grant program will be replaced with a new Innovative Technology Program, and additional flexibility will be available to address eligible activities under the Commercial Driver's License program improvement grant program.

As a condition of full MCSAP funding, every state will be required to participate in the Performance and Registration Information Systems Management Program (PRISM) within three years of enactment, thus expanding the number of states that

can suspend or revoke the vehicle registration of carriers subject to FMCSA out-of-service orders. States will also gain the ability to use MCSAP funds to conduct reviews of household goods carriers, brokers, and freight forwarders, protecting the public from predatory practices. The Act will provide a new minimum Federal share of 85 percent, a funding level applied to each of FMCSA's grant programs. The Agency will also have the ability to withhold incremental amounts of MCSAP funding for State non-compliance with grant conditions, rather than being required to withhold either the full amount or none at all. This added tool will allow FMCSA to address compliance issues while allowing states sufficient funds to continue critical safety activities.

### **MAP-21 Implementation and Other Priorities**

FMCSA is working to implement the provisions of the Moving Ahead for Progress in the 21st Century Act (MAP-21), as well as advance core safety initiatives including the Compliance, Safety, Accountability (CSA) program, and hours-of-service (HOS) research.

#### *Compliance, Safety, Accountability*

CSA is the cornerstone of FMCSA's compliance model to improve CMV safety and reduce large truck and bus crashes, injuries, and fatalities on our Nation's highways. CSA consists of its Safety Measurement System (SMS) to identify companies for enforcement interventions, a wide array of interventions that target carriers' safety performance and compliance problems, and a new methodology (to be proposed in future rulemaking) to determine the safety fitness of motor carriers.

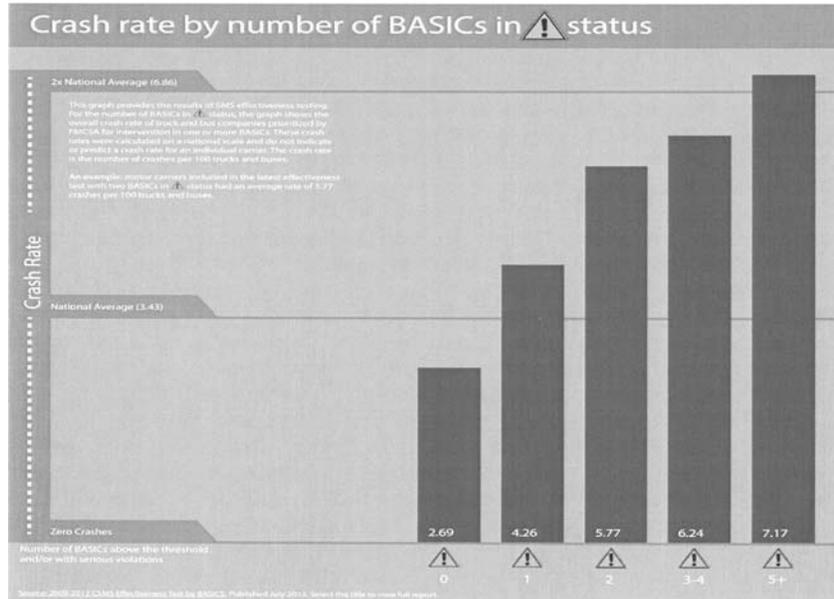
Given the size of our Federal workforce and the very limited resources of our State enforcement partners relative to our regulated population, it is imperative that we apply our resources efficiently. The Agency, therefore, utilizes SMS to identify noncompliant and unsafe companies to prioritize them for enforcement interventions. FMCSA continues to improve SMS to identify those motor carriers that pose the greatest risk to safety. Our responsiveness to industry, safety advocates, oversight agencies and Congress continually prompts new and revised policies, reports, and changes to the SMS. Last year, we announced changes to our adjudicated violations process. Since August 2014, motor carriers and drivers have been able to request updates to their data through the DataQs process to reflect when the driver or carrier is found not guilty or a violation is changed or dismissed in court.

This spring, the Agency will announce additional changes to SMS. These changes will strengthen our ability to identify companies for investigation before they are involved in a crash. We will publish these changes in the Federal Register and provide the public an opportunity to comment before finalizing.

Recently, we announced the results of our crash weighting research, which addressed the feasibility of using a motor carrier's role in crashes as an indicator of future crash risk. The study considers the use of police accident reports in determining crash accountability and the reliability of using crash involvement or crash weighting as an indicator of future crash risk. We are currently receiving comments on this issue and will determine next steps based on that feedback. We published the notice in January, and the comment period runs through March 25.

We continue to work toward publication of a proposed rule that would increase the use of inspection data in making safety fitness determinations for motor carriers. The Safety Fitness Determination proposal will include a fixed, non-relative failure standard and will take into account recommendations for larger amounts of data to make accurate determinations of a carrier's fitness to operate.

Importantly, as is shown by the figure below, carriers identified as having one or more areas above the established thresholds in SMS have crash rates significantly higher than carriers that aren't identified. As the number of Behavior Analysis and Safety Improvement Categories (BASICS) over threshold increase, so does the crash rate.



The issue of data sufficiency has received a lot of attention recently. Based upon studies completed by the Agency and independent researchers, the SMS is effective at identifying carriers that are engaging in behaviors likely to cause a crash. FMCSA, our State partners, the Government Accountability Office (GAO), the Office of Inspector (OIG), and the National Transportation Board (NTSB) all share a common goal of finding the most effective tools for identifying high risk carriers and taking appropriate enforcement actions. While we all share that goal, we have also had clear differences over specific methodologies for prioritizing a carrier as higher crash risk and for taking action. For example, a February 2014 GAO study recommended that the Agency revise the SMS to account for what it sees as data limitations. The GAO developed a methodology that only considers carriers that have at least 20 inspections or 20 vehicles and eliminates the use of safety event groups. That approach runs counter to the goals of SMS, which identifies dangerous violation patterns much earlier. The overwhelming majority of motor carriers—more than 90 percent of our regulated population—*never reach* the 20 observation level during the relevant measurement period. Under GAO’s approach to SMS, the safety performance of all these companies would be simply ignored. The public demands a proactive approach, rather than waiting for 20 –observation—or a crash—before we intervene.

The SMS is effective at identifying carriers that are more likely than others to crash because the carriers are engaging in risky behaviors. The Agency is working hard to intervene with those carriers exhibiting high risk behaviors in the most efficient manner possible and to engage the companies before they have a crash.

#### *Hours-of-Service*

Due to the importance of driver fatigue as a safety risk, we issued new rules regarding drivers’ hours of service in 2011. The final rule required truck drivers who use the “34-hour restart” provision to maximize their weekly work hours to limit the restart to once a week and to include in the restart period at least two nights off duty from 1:00 to 5:00 a.m., when our 24-hour body clock needs and benefits from sleep the most. The provision was included in response to research showing that drivers who routinely work overnight schedules and sleep during the daytime tend to “switch their sleep clocks” on weekends while they are with their families, doing errands, and so on. As a result, they often get only one night of sleep during the 34-hour break—which research shows is insufficient to eliminate fatigue—before climbing back into the truck Sunday evening.

The rule was structured with flexibility such that each driver would use the restart based on his or her specific schedule for the week which would establish the

point at which the driver would determine whether a 34-hour restart was needed, and if so, when it would begin and end.

As mandated by MAP-21, the Agency conducted a field study which expanded upon the results of the laboratory-based study relating to CMV driver fatigue. This research was conducted between January and July 2013, and not as an aspect of our regulatory process. MAP-21 did not require the study to address the impact of the new rule on the volume of truck traffic during daytime hours. However, the Agency is not aware of study results or data that suggests the 2011 rule forced drivers to shift their work schedules from nighttime operations to daytime operations.

On December 16, 2014, the Congress enacted the Consolidated and Further Continuing Appropriations Act, 2015, which included provisions restoring the pre-2013 restart rule, pending further study of the post-2013 rule. In particular, the once-a-week limitation on the use of the restart and the requirement for two nights off duty were suspended until the end of this fiscal year. FMCSA issued a notice in the Federal Register on December 17 suspending the 2013 restart provisions. Those restart provisions have no force or effect from the date of enactment of the Appropriations Act through the period of suspension, and have been replaced with the previous restart provisions that were in effect on June 30, 2013. FMCSA notified motor carriers and commercial drivers, and trained thousands of State Motor Carrier Safety Assistance Program grant recipients, and other law enforcement personnel on these immediate enforcement changes.

The Agency selected the Virginia Tech Transportation Institute (VTTI) to conduct the study mandated by Congress. We have worked diligently to reach out and recruit potential drivers from all segments of the trucking industry as the statute requires. VTTI has a solid national reputation for conducting vehicle-related safety and driver fatigue research. VTTI pioneered the use of naturalistic driving studies and has successfully carried out similar FMCSA projects for the past 10 years. As required by Congress, the study methodology is now undergoing review by the DOT Office of Inspector General. This driver restart study is the largest naturalistic study of its kind that FMCSA has ever undertaken. We anticipate releasing the findings later in the year.

#### *Electronic Logging Devices*

MAP-21 included a provision mandating the use of electronic logging devices (ELD) for those CMV drivers who are required to keep a record of duty status under the HOS regulations. FMCSA is preparing to issue its final rule on ELDs this fall. The ELD rule will require CMV drivers who are now required to keep a record of duty status under the HOS regulations to maintain these records electronically. ELDs will automate HOS tracking, making it easier for drivers to log hours and more difficult to conceal violations of the hours-of-service rules. Once promulgated, the rule will help businesses cut paperwork and will increase the efficiency of law enforcement personnel and safety inspectors. The rule will also ensure that the devices are not used to harass drivers. By improving HOS compliance, ELDs are expected to prevent approximately 1,400 crashes, 20 fatalities, and more than 400 injuries each year, with a net economic savings of close to \$450 million.

#### *National Registry of Certified Medical Examiners*

In May 2015, FMCSA will celebrate the first anniversary of the full implementation of the National Registry of Certified Medical Examiners (National Registry). As mandated by SAFETEA-LU and MAP-21, the National Registry rule requires all Medical Examiners (ME) who conduct physical examinations and issue medical certifications for interstate CMV drivers to complete training on FMCSA's physical qualification standards, pass a certification test, and demonstrate competence through periodic training and testing. Currently, all CMV drivers whose medical certification expires must use MEs on the National Registry for their examinations.

Between May 2014 and November 2014, more than 2.4 million examinations of commercial motor vehicle drivers were conducted by healthcare professionals on the National Registry. We anticipate receiving data for December 2014 and January 2015 by the end of March. The National Registry has been a great success. To date, we have reached our goal of 40,000 certified MEs on the National Registry. Drivers can now find MEs throughout the Nation who can competently perform their medical examination. Any physician or other qualified medical professional (such as a physician's assistant or an advanced practice nurse) licensed by a State to conduct physical examinations can be listed on the National Registry if they are trained, tested, and certified.

With the help of the OIG and our State law enforcement partners, we have identified and prosecuted uncertified MEs and others who have committed fraud or otherwise abused the physical qualifications process.

We are preparing to issue a follow-on “National Registry 2” rulemaking that will require MEs to submit the medical certificate information for CMV drivers to FMCSA on a daily basis. The Agency will then be able to promptly transmit medical certificate information electronically to the State Driver Licensing Agencies for the CDL holders. This will dramatically decrease the chance of drivers falsifying medical cards and will lessen the amount of paperwork required currently.

*Drug and Alcohol Clearinghouse*

To further prevent crashes, we must ensure that CDL holders are sober and drug-free. We published a Notice of Proposed Rulemaking (NPRM) on the Drug and Alcohol Clearinghouse (Clearinghouse) to implement the MAP-21 provision on this subject. The Clearinghouse would require truck and bus companies (and other entities responsible for managing DOT drug & alcohol testing programs) to report verified positive drug and alcohol test results, test refusals, negative return-to-duty test results and follow-up testing. This information would populate the Clearinghouse database with positive drug and alcohol test information on CDL holders. This information would remain in the Clearinghouse for a requisite period of time after the CDL-holder completes the return-to-duty rehabilitative process, which allows the driver to become re-qualified to operate a CMV. Once the Clearinghouse is fully implemented, employers would be required to conduct pre-employment searches in the repository as part of the hiring process for CDL drivers and annual searches on current employee drivers. The final rule is in development and is scheduled to be published later this year.

*Entry-Level Driver Training Requirements*

MAP-21 directed the Agency to issue final regulations to require entry-level training for drivers who require a CDL and for those upgrading from one class of CDL to another. The Agency’s rulemaking must address knowledge and skills for safe operation and other issues. In 2013, the Agency held listening sessions and asked our Motor Carrier Safety Advisory Committee (MCSAC) to provide recommendations on ELDT. These sessions and the MCSAC gave the Agency substantial information about training for entry-level CDL applicants. In August, the Agency engaged the services of a convener to assess the feasibility of conducting a negotiated rulemaking (Reg Neg) to implement this provision. The convener recommended that the Agency proceed with a Reg Neg on ELDT. In February, the Agency announced the appointment of 26 stakeholders to participate in the negotiated rulemaking committee. Known as the Entry-Level Driver Training Advisory Committee (ELDTAC), the Committee held its first meeting last week, on February 26–27. The Department plans an accelerated Reg Neg to reach consensus among these key stakeholders so that we can issue a Notice of Proposed Rulemaking (NPRM) by fall 2015 and a final rule by 2016.

We hope these changes will make it easier for all of our stakeholders, from drivers and carriers to enforcement partners, to work together toward our shared safety goals.

**Conclusion**

Thank you, Chairman Fischer and Ranking Member Booker, for the opportunity to discuss Federal motor carrier safety programs. We look forward to working with you on enacting the next surface transportation bill to improve safety, reduce crashes, prevent injuries, and save lives on our Nation’s highways.

Senator FISCHER. Thank you, Mr. Darling.  
Mr. Comé.

**STATEMENT OF JOSEPH W. COMÉ, DEPUTY PRINCIPAL  
ASSISTANT INSPECTOR GENERAL FOR AUDITING  
AND EVALUATION, U.S. DEPARTMENT OF TRANSPORTATION**

Mr. COMÉ. Chairman Fischer, Ranking Member Booker, and members of this Subcommittee, thank you for inviting me to testify today.

I will focus on three things. First, what the Federal Motor Carrier Safety Administration has done and what it still needs to do to address our work in the IG’s Office on the Compliance Safety Accountability program, or CSA. Second, challenges with addressing

reincarnated carriers. And third, our ongoing work to bolster FMCSA's enforcement of motor carrier safety regulations.

CSA is intended to target enforcement intervention, such as on-site reviews, on higher risk motor carriers. CSA's success depends in part on complete, correct data reporting from the carriers and the states. We reported last March that about half of roughly 800,000 carriers had not updated their data between January 2011 and February 2013 as required. To respond to this longstanding concern on carrier-reported data, FMCSA began to automatically take action against carriers for not updating their data. And by April 2014, the agency had deactivate over 20,000 U.S. DOT numbers for carriers with outdated data.

Information systems play a key role in CSA's operations. In response to weaknesses we identified, such as incomplete documentation for CSA's IT validation and testing processes, FMCSA developed complete system requirements and a configuration management plan. However, sustained attention in this area is important to ensure effective control as staff turns over and systems change.

Despite these actions, timely and effective implementation of enforcement interventions within CSA remains a challenge largely due to delays in developing CSA's intervention software. At the time of our March 2014 report, only 10 states had implemented all interventions and FMCSA does not expect to fully deploy the intervention software needed until 2016; more than 3 years passed the first estimated release date. In the meantime, the extent to which FMCSA and its state partners can monitor and correct higher risk carriers will be reduced.

In regards to reincarnated carriers, these carriers who often use aliases, or different business addresses to evade out-of-service orders and other enforcement actions, continue to be a concern. A number of our criminal investigations have prompted legal action and resulted in jail time and fines, but there are legal and procedural barriers to prosecuting cases.

For example, one reincarnated carrier case was recently declined for prosecution because a criminal penalty related to the Title 49 violation being charged was only a misdemeanor provision which is less likely to result in jail time. The improper use of third parties to complete applications for DOT authority may also present complications to prosecution.

To detect higher risk carriers before they reincarnate, FMCSA has tested new screening tools and it plans to roll out an enhanced process to vet applicants for Federal operating authority. Timely implementation of an enhanced vetting process will help FMCSA more efficiently identify and, where appropriate, remove carriers.

Our criminal investigators also continue to identify carriers who commit fraud and violate FMCSA's regulations in other areas. Through our partnership with FMCSA on the criminal side we have uncovered fraud committed by household good movers and in drug and alcohol testing programs, as well as shut down illicit commercial driving license schemes.

We also have a lot of work underway to respond to congressional mandates including a review related to FMCSA's 34-hour restart study. Congress suspended enforcement of the restart rule and required FMCSA to conduct the study of the rules, operational safety

health and fatigue impacts. Our office is in charge of reviewing FMCSA's plans and final results for the study to ensure the review complies with the act.

Finally, Congress has directed us to assess FMCSA's Mandatory Compliance Review process including determining whether FMCSA's investigations are adequate to detect the violations. NTSB has raised similar concerns. This will be an important issue for us to address.

This concludes my prepared statement. I'd be happy to answer any questions you or other members of the Subcommittee may have.

[The prepared statement of Mr. Com  follows:]

PREPARED STATEMENT OF JOSEPH W. COM , DEPUTY PRINCIPAL ASSISTANT INSPECTOR GENERAL FOR AUDITING AND EVALUATION, U.S. DEPARTMENT OF TRANSPORTATION

Chairman Fischer:

Thank you for inviting me to testify on the Federal Motor Carrier Safety Administration's (FMCSA) oversight programs and on issues impacting the Subcommittee's work on the Agency's reauthorization. As you know, FMCSA is responsible for ensuring a safe U.S. motor carrier industry, which comprises over half a million passenger and commercial carriers and more than 5.6 million commercial motor vehicle drivers. While fatalities involving large trucks and buses have decreased over the last 10 years, they remain high; in 2013, fatalities totaled nearly 4,300, and injuries nearly 83,000.

To improve safety across the vast motor carrier industry, FMCSA launched its Compliance, Safety, Accountability (CSA) program in 2010, which aims to target FMCSA and State enforcement interventions—such as roadside inspections and on-site reviews—to motor carriers that pose a higher risk of violating safety rules. FMCSA has faced significant scrutiny from carriers and industry groups who have expressed concern that relative safety rankings generated by the CSA program, most of which are available to the public, do not accurately reflect safety risk.

My testimony today focuses on (1) the status of FMCSA's CSA program; (2) challenges with addressing reincarnated carriers; and (3) our efforts to complement FMCSA's enforcement program, as well as our ongoing work on motor carrier safety.

#### **In Summary**

FMCSA has taken action to improve CSA data quality and system development, such as enhancing its efforts to monitor and correct State-reported data on crashes and inspections, and implementing a process for deactivating USDOT numbers<sup>1</sup> for carriers with outdated data. However, nationwide implementation of timely and effective enforcement interventions remains a challenge, largely due to delays in contractor development of software for assessing and monitoring interventions. Ensuring compliance with safety regulations also remains a challenge for FMCSA, although continued collaborative efforts with our office and law enforcement partners have proven effective at removing carriers and drivers intent on breaking the law, including reincarnated carriers. Key actions to keep reincarnated carriers off the road include effective vetting of carriers' applications and prosecuting those companies that are caught violating the law. Collaboration has also been a major factor in successfully pursuing household goods carriers and brokers that hold consumer belongings hostage, commercial driver's license fraud, and fraud in drug and alcohol programs.

#### **FMCSA Has Taken Action To Improve Its CSA Program, But Implementation of Enforcement Interventions is Incomplete**

FMCSA has taken several actions we recommended to improve CSA data quality and system development controls, which are fundamental to ensuring this safety initiative achieves its aim—to reduce truck and bus related injuries and fatalities by focusing enforcement efforts on carriers that pose a higher safety risk. However, nationwide implementation of enforcement interventions remains a challenge, largely

<sup>1</sup> Companies that operate commercial vehicles transporting passengers or hauling cargo in interstate commerce must have a USDOT number, which serves as a unique identifier for collecting and monitoring a company's safety information.

due to delays in updating software for collecting documentation and monitoring interventions.

*FMCSA Has Taken Action To Improve Data Quality and System Development*

To identify high-risk carriers, FMCSA evaluates data with the Carrier Safety Measurement System (CSMS)<sup>2</sup> and calculates relative rankings for carriers' on-road performance. Accurate rankings depend, in part, on complete, correct data. Because FMCSA uses certain census data (such as vehicle miles traveled and number of motor vehicles) to calculate carrier performance rankings, missing or outdated data can lead to incorrect computations and, ultimately, hamper safety monitoring and enforcement activities.

In 2006, we reported that more than one-quarter of the over 700,000 existing motor carriers did not update census data every 2 years, as required. While FMCSA stated that it had taken over 2,000 enforcement actions since 2006, such as levying fines, against carriers that did not comply with its census data requirements, we reported in our March 2014 assessment<sup>3</sup> that about half of the roughly 803,000 active interstate carriers had not updated their census data between January 2011 and February 2013.

In response to recommendations we made last March, FMCSA has taken action to improve the data used by CSMS. Specifically, FMCSA enhanced its efforts to monitor and correct State-reported data on crashes and inspections. This included revised guidance on its data correction process, including treatment of dismissed violations. To respond to longstanding concerns about missing and inaccurate carrier-reported census data, FMCSA began to automatically deactivate USDOT numbers for carriers that do not update their census data every 2 years. By mid-April 2014, 20,500 USDOT numbers were deactivated.

Our March 2014 review also determined that FMCSA had limited documentation demonstrating that it followed information technology system development best practices<sup>4</sup> and Federal guidance—which emphasize thorough documentation of information technology system components and controls—while developing and testing CSMS. Specifically, FMCSA's documentation of key processes—such as validation and testing—was incomplete. For example, FMCSA lacked documentation to show that it conducted testing for four of the changes made to the system since its nationwide implementation in 2010. Insufficient documentation impedes FMCSA's ability to maintain effective control of the system in the event of staff turnover and further changes made to the system. In response to our recommendations, FMCSA developed complete system requirements and a configuration management plan for properly recording testing and validation results.

*Timely and Effective Implementation of CSA Enforcement Interventions Nationwide Remains a Challenge*

While FMCSA has made progress to improve data quality and improve system development, implementation of CSA enforcement interventions remains a concern, largely due to delays in developing updated Sentri software for collecting documentation and monitoring interventions.<sup>5</sup> At the time of our report, only 10 states (which were part of FMCSA's pilot or already had software) had fully implemented all interventions,<sup>6</sup> and FMCSA does not expect to complete nationwide implementation until 2016. Without full implementation of all of CSA's interventions, FMCSA

<sup>2</sup> CSMS analyzes carrier data uploaded monthly from roadside inspections, crash reports from the last 2 years, and investigation results. It also uses self-reported census information about the carriers' operations.

<sup>3</sup> OIG Report MH-2014-032, *Actions Are Needed To Strengthen FMCSA's Compliance, Safety, Accountability Program*, Mar. 5, 2014. OIG reports are available on our website at: [www.oig.dot.gov](http://www.oig.dot.gov). The Government Accountability Office (GAO) reported separately on the effectiveness of CSA's algorithm: GAO Report GAO-14-114, *Modifying the Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers*, Feb 3, 2014.

<sup>4</sup> Because CSMS is a Department of Transportation information technology system, industry best practices and Federal internal control standards are applicable to its development, testing, and validation. These best practices and standards include the Department's Integrated Program Planning and Management Governance and Practitioners Guides and guidance from the National Institute for Standards and Technology and GAO.

<sup>5</sup> Sentri is the Safety Enforcement Tracking and Investigation System, and its primary users are FMCSA field officials and enforcement officials. The next version of Sentri is intended to combine roadside inspection, investigative, and enforcement functions into a single interface and replace all other legacy systems.

<sup>6</sup> All states have implemented seven of the nine interventions except for off-site investigations and cooperative safety plans.

and its State partners cannot monitor and correct as many high-risk carriers as it otherwise could.

Because of the incomplete implementation of enforcement interventions to date, we have not fully assessed the interventions' effectiveness. However, based on our initial observations, FMCSA faces two key challenges to fully implement CSA interventions in the remaining 40 states and the District of Columbia: (1) developing and deploying software training for the states in a timely manner and (2) working with its Division Offices and their State partners to ensure states effectively apply the interventions.

To fully implement CSA enforcement interventions, we recommended that FMCSA develop a comprehensive plan that includes an estimated completion date and milestones for releasing Senti software, developing and delivering training, and using the enforcement interventions. While FMCSA currently expects to receive the software from the contractor by November 2015, its release has been postponed several times. More than 3 years have passed since the first estimated release date.

### **Despite Progress, Challenges Remain with Addressing Reincarnated Motor Carriers**

A longstanding safety concern in the motor carrier industry is the practice of reincarnated carriers—carriers that attempt to operate as different entities in an effort to evade FMCSA's enforcement actions. To circumvent out-of-service orders, these carriers often assume aliases or use different business addresses. Key actions to keep reincarnated carriers off the road include effective vetting of carriers' applications and taking meaningful civil enforcement actions against carriers who continue to violate the law. The Office of Inspector General's (OIG) criminal investigations bolster FMCSA's enforcement efforts.

We are seeing an increase in criminal cases of carriers blatantly disregarding safety laws and regulations, including attempts to reincarnate. In one particularly egregious case, a Georgia man continued to drive trucks for a company that had been issued an out-of-service order following a fatal crash that killed seven in Alabama. The man was sentenced to 6 months incarceration and 12 months supervised release for his participation in the conspiracy to violate the out-of-service order. In another case, the owner of a Tennessee trucking company continued commercial motor carrier operations under the name and authority of a second company after FMCSA issued an out-of-service order for unacceptable safety practices. Subsequently, FMCSA categorized the second company as a continuation of the first and placed it under an out-of-service order as well. The owners of the trucking companies pleaded guilty to out-of-service order violations.

Prosecuting carriers that attempt to evade FMCSA's out-of-service orders can be challenging. While a number of our investigations of alleged reincarnated carriers have prompted legal action, there are some legal and procedural barriers to prosecuting cases. For example, one reincarnated carrier case was recently declined for prosecution because the criminal penalties under Title 49 U.S.C. Section 521 contain only a misdemeanor provision, which is less likely to result in jail time. In the Tennessee case, a District Court Judge similarly ruled that violating an out-of-service order under Title 49 U.S.C. Section 521, was a civil—not a criminal—offense. Finally, we have started to see on the West Coast that third parties are completing applications for DOT authority and falsely representing that the applicant has no prior affiliation with another carrier. This practice not only violates FMCSA's instructions for completing the Application for Motor Carrier Property Carrier and Broker Authority form but complicates the Department of Justice's ability to prosecute bad actors. Criminal prosecution of these cases can send a strong message that blatant disregard of FMCSA enforcement actions or out-of-service orders will not be tolerated.

Thoroughly vetting applicants for Federal operating authority is key to detecting high-risk carriers before they reincarnate. To help focus investigative resources on the highest risk passenger carriers, FMCSA established a screening tool initially used only for vetting new passenger carrier applicants. The tool identifies matches between applicants' data and suspect carriers<sup>7</sup> and generates a score based on the matches. Theoretically, the higher the score, the greater the likelihood that an applicant and a suspect carrier are a match, warranting further review by FMCSA

<sup>7</sup>A suspect carrier is a carrier who is applying for new operating authority but whose owner's name, address, or some other information matches with a carrier put out of service or facing other major violations.

staff. However, as we reported in April 2012,<sup>8</sup> the tool produced unreliable scores and, in some cases, assigned low scores to carriers who were likely to be reincarnations.

Upon discovering this flaw, FMCSA began manually reviewing all applicants with matches as pre-existing carriers. Since then, FMCSA has made progress in developing an effective, more automated screening tool. In June 2013, FMCSA tested a data-driven, risk-based prototype screening methodology—which it plans to phase in and fully implement this year for all new applicants—and centralized the vetting process within a new office, the Office of Registration and Safety Information. After testing, FMCSA identified some flaws with the methodology, but it plans to continue screening tool development and potentially incorporate it into its new electronic, online registration system, the Unified Registration System, by October 2015.

FMCSA plans to roll out its enhanced vetting process to all motor carriers—commercial as well as passenger—but the process is not yet fully implemented. Given that passenger carriers make up a small portion of the companies regulated by FMCSA, expanding use of the tool to all motor carriers will pose a significant challenge. FMCSA has the authority to detect, deter, and implement vigorous enforcement actions against carriers that seek to reincarnate.<sup>9</sup> To carry out this authority, FMCSA established procedures for issuing out-of-service orders to reincarnated motor carriers. The procedures provide for an administrative review of carriers with a history of failing to comply with statutory or regulatory requirements before an out-of-service order takes effect. The rule also establishes a process for consolidating FMCSA records of reincarnated companies with their predecessor entities. Carriers can no longer unilaterally terminate an enforcement proceeding by making full payment of the civil penalties levied without an admission of liability. Timely implementation of targeted and risk-based actions like these will help FMCSA more efficiently identify carriers that pose safety risks and keep them off the road.

#### **OIG Actions to Combat Fraud and Address Congressional Mandates Support FMCSA Efforts to Oversee the Motor Carrier Industry**

OIG remains dedicated to complementing FMCSA's enforcement program through criminal investigations of egregious violators of FMCSA's regulations. In addition, our audit efforts continue to identify opportunities to improve the effectiveness and efficiency of motor carrier safety programs. We have had success in the past and continue to partner with FMCSA to prevent household goods fraud, commercial driver's license fraud, and fraud in drug and alcohol programs. We also have work under way to address congressional mandates concerning FMCSA's hours-of-service restart study and high-risk carrier investigative practices.

##### *Combating Household Goods Fraud*

According to FMCSA, approximately 5,000 moving companies transport the household goods of 1.6 million Americans each year, and FMCSA receives about 3,000 consumer complaints annually regarding household goods movers. Our investigations target complaints of egregious offenses, particularly those involving suspect household goods brokers and carriers that hold customers' belongings hostage while attempting to extort significantly greater sums of money above the original quotes than are legally permissible. To carry out this extortion, brokers and carriers engage in other illegal activities that include conspiracy, wire fraud, mail fraud, money laundering, and falsification of bills of lading and shipment weight documents.

While FMCSA is responsible for the civil enforcement of the consumer protection and economic regulations governing interstate household goods transportation, combating household goods fraud to protect consumers from rogue companies is an OIG investigative priority. In addition to actions FMCSA has taken to protect consumers—including requiring moving companies to provide customers with FMCSA's booklet on consumer rights and responsibilities when they move—OIG investigations, and the resulting criminal prosecutions and sanctions, are strong deterrents to violators who consider civil penalties simply a cost of doing business.

The vast majority of the allegations against rogue household goods companies we investigate have come from FMCSA and Operation Boxed Up, a proactive, cooperative initiative that OIG launched in March 2011 to target groups of carriers and brokers engaged in household goods fraud schemes. By analyzing databases from FMCSA's household goods regulatory program, we identified consumer complaints on the most egregious actions by these carriers and brokers. In the past 5 years,

<sup>8</sup> OIG Report MH-2012-087, *Timely and Targeted FMCSA Action Is Needed To Fully Address National Transportation Safety Board Recommendations for Improving Passenger Carrier Oversight*, Apr. 17, 2012.

<sup>9</sup> 49 Code of Federal Regulations § 386.73.

we have opened 38 investigations, and have conducted 21 arrest warrants and 20 search warrants. Our work has resulted in 20 indictments, 22 convictions, over 45 years of jail time, and approximately \$2.8 million in financial recoveries. The lion's share of these results has come from our Operation Boxed Up initiative.

In conjunction with Operation Boxed Up, we launched a Wanted Fugitives Web page in September 2012 to make the public aware of individuals with active arrest warrants who have fled the court's jurisdiction. The site currently identifies 37 defendants charged with transportation-related crimes—all but 1 of which involves household goods fraud. In April 2014, the first fugitive was captured after more than 2 years on the run. Wanted on charges related to a large-scale household goods fraud scheme in Texas and under increasing pressure, the defendant turned himself in at the Federal Courthouse in Philadelphia, PA. He and his two accomplices used 11 different company names to defraud dozens of customers. The three men were sentenced collectively to 30 years imprisonment and over \$470,000 in restitution to their victims.

#### *Other Efforts To Combat Fraud and Help Ensure Motor Carrier Safety*

We continue to partner with FMCSA to combat commercial driver's license and drug and alcohol testing fraud.

*CDL Fraud:* States are responsible for developing a knowledge and skills test that confirms drivers understand and can follow Federal motor carrier safety laws. However, weaknesses in the CDL program continue to allow individuals and third-party testers to exploit the program, resulting in hundreds of fraudulently issued licenses. In 2011, FMCSA issued new regulations to tighten controls over CDL testing. Historically, however, FMCSA has had difficulty ensuring states swiftly and effectively implement new regulations. Since 2011, our office has opened 10 CDL fraud investigations in 6 states. In a recent case, the owner-operators of a driving school pleaded guilty to a test-taking scheme to provide answers to an estimated 500 New York State CDL applicants on the written exam. In a separate case, multiple individuals pleaded guilty, including New York Department of Motor Vehicle (DMV) employees, in a CDL test-taking conspiracy involving five DMV test centers in the New York City area. The investigation revealed that CDL applicants paid facilitators between \$1,800 and \$2,500 in return for CDL test answers and assistance through DMV processes. Fraud schemes included the use of pencils containing miniaturized encoded test answers and the use of a Bluetooth headset as a communication device to relay CDL test answers.

*Drug and Alcohol Testing Fraud:* Since the early 1990s, FMCSA and its predecessor agency have established drug and alcohol testing rules and regulations for employees who drive commercial trucks and buses that require a CDL. These regulations identify who is subject to testing, when they are tested, and in what situations. Our agents' investigations of parties who have fraudulently circumvented these regulations have resulted in recent convictions. In one case in Pennsylvania, the owner of a drug testing company pleaded guilty to defrauding several commercial motor carrier employers and drivers by using the signature of a medical review officer who had not worked for the drug testing company for many years to certify test results. In another case in California, the owner of a drug testing company was charged in a scheme to defraud 80 trucking companies that employed commercial drivers in conjunction with the provision of random and pre-employment drug testing services by allegedly falsifying specimen tests results required by and provided to FMCSA.

#### *Ongoing Efforts To Address Recent Congressional Mandates*

Congress recently directed us to assess FMCSA's hours-of-service restart study and its high-risk carriers' investigative practices. We have work under way to respond to these congressional mandates to improve motor carrier safety.

*Hours-of-Service Study:* To keep fatigued drivers off public roadways, FMCSA requires drivers of large, heavy trucks to comply with its hours-of-service regulations, which limit when and how long drivers can operate.<sup>10</sup> Effective in 2013, FMCSA required drivers to comply with a revised 34-hour restart rule to reset the weekly driving limit. The revised rule required a driver to be off duty for 34 consecutive hours, which must include two 1 a.m. to 5 a.m. periods. After the rule went into effect, concerns were raised about the rule's unintended consequences, such as increased congestion during daytime traffic hours. In the Consolidated and Further Continuing Appropriations Act of 2015, Congress suspended FMCSA's enforcement of the 34-hour restart rule and required the Agency to conduct a study of the rule's

<sup>10</sup>The hours-of-service regulations are found in Part 395 of the Federal Motor Carrier Safety Regulations. States may have identical or similar regulations.

operational, safety, health, and fatigue impacts. The act mandated that we review FMCSA's plan for conducting the study, as well as the study's final results, to determine whether they comply with the requirements of the act. FMCSA has provided us its plan for the restart study, which we will brief out mid-March. We will issue our findings on FMCSA's final report 60 days after its issuance, as required by the act.

*High-Risk Carriers:* FMCSA conducts on-site reviews of motor carrier compliance with safety rules—such as those related to vehicle maintenance and inspection, commercial driver qualifications and licensing requirements, drivers' hours of service, financial responsibility, hazardous materials transport, and other transportation safety rules—as well as reviews any accident records. These compliance reviews may be conducted in response to a request to change a carrier's safety rating, to investigate potential violations of safety regulations by motor carriers, or to investigate complaints or other evidence of safety violations, and may result in enforcement actions. Concerned that unsafe carriers may be operating on our roadways due to untimely investigations, Congress directed us to assess FMCSA's mandatory compliance review process to ensure motor carriers flagged for investigation are being investigated in a timely manner and to determine whether the type of investigations FMCSA conducts is adequate to detect violations.

This concludes my prepared statement. I will be happy to answer any questions you or other members of the Subcommittee may have.

The CHAIRMAN. Thank you, Mr. Comé.  
Ms. FLEMING.

**STATEMENT OF SUSAN A. FLEMING, DIRECTOR,  
PHYSICAL INFRASTRUCTURE ISSUES,  
U.S. GOVERNMENT ACCOUNTABILITY OFFICE**

Ms. FLEMING. Madam Chairman, Ranking Member Booker, Ranking Member Nelson, and members of this Subcommittee, thank you for the opportunity to discuss FMCSA's efforts to conduct oversight of commercial motor carriers and, more specifically, to reduce crashes which cause thousands of injuries and fatalities each year.

With over 500,000 active motor carriers on our nation's roads, FMCSA must strategically direct its resources to identify and target those carriers presenting the greatest risk for crashing in the future. Although our recent work shows that FMCSA has taken some important steps in this direction, my testimony reports on two aspects of its efforts that present serious challenges: the reliability of the key component of CSA, the Safety Measurement System, or SMS, in predicting crashes; and FMCSA's ability to determine the prevalence of chameleon carriers, carriers that use a new identity to operate illegally on the road.

Let me begin with the Safety Measurement System. Two shortcomings make SMS an unreliable predictor of crashes. First, most of the safety regulations used in SMS to identify high-risk carriers were violated too infrequently to provide a meaningful association at the carrier level.

Second, FMCSA does not have sufficient safety data on most carriers to compare them with other carriers and reliably assess their likelihood of a crash. About two-thirds of carriers operate fewer than four vehicles and the vehicles of the carriers with small fleets were inspected too infrequently to produce reliable safety data. We believe this may be why the majority of carriers SMS identifies as having a high risk of crashing never actually crash. SMS does hold promise, however. FMCSA could improve its effectiveness by limiting its focus to carriers with more vehicles and more inspections. In other words, carriers with more safety information.

In our work, we illustrate that this approach better identifies carriers that crash. We realize this would involve a tradeoff. Fewer carriers would be scored with SMS but it would produce a more reliable indicator of potential crash risk. Based on these concerns, we recommended that FMCSA revise the SMS methodology to better account for limitations we identified and carrier safety performance information.

FMCSA officials did not concur with our recommendations stating that SMS, in its current state, is sufficient to prioritize carriers for intervention. However, we believe that, without the modifications we recommend, FMCSA will fall short of its mission established by Congress nearly 15 years ago to ensure the safety of commercial motor vehicles, drivers, and the traveling public.

Now, I would like to turn to chameleon carriers. FMCSA cannot readily determine the number of chameleon carriers on the road though they present a serious danger to the public. FMCSA has established a vetting program to identify possible chameleon carriers but only for bus operators and moving companies. FMCSA has chosen to vet these two types of carriers because they pose the highest safety and consumer protection concerns and there are not enough resources to apply the vetting program to the much larger freight carrier population.

While FMCSA's focus on these carriers limits the vetting program to a manageable number, our analysis found that, of the more than 1,100 new motor carrier applicants in 2010 that had chameleon attributes, the vast majority were freight carriers not bus and moving companies. To address chameleon carriers we recommended a data-driven approach to its screening process.

In June 2013, FMCSA began implementing a risk-based methodology that closely follows the methodology in our report. Preliminary analysis indicate that it is generally successful.

In conclusion, FMCSA plays an important role in identifying and removing unsafe commercial carriers from the roadways. We agree with FMCSA that a data-driven approach is critical for accomplishing this mission. However, we do not believe the agency has developed the most effective methods for using its data to target carriers presenting the greatest safety risk.

Madam Chairman, this concludes my statement. I would be pleased to answer any questions you or members of this subcommittee might have.

[The prepared statement of Ms. Fleming follows:]

#### **GAO Highlights**

Highlights of GAO-15-433T, a testimony before the Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety and Security, Committee on Commerce, Science, and Transportation, U.S. Senate

#### **Why GAO Did This Study**

FMCSA's primary mission of reducing crashes, injuries, and fatalities involving large trucks and buses is critical to the safety of our Nation's highways. However, with more than 500,000 active motor carriers operating on U.S. roadways, FMCSA must screen, identify, and target its resources toward those carriers presenting the greatest risk for crashing in the future.

- FMCSA has recently taken some steps in this direction by, among other actions:
- Establishing its oversight program—the CSA program—based on a data-driven approach for identifying motor carriers at risk of presenting a safety hazard or causing a crash, and

- Establishing a vetting program designed to detect potential “chameleon” carriers—those carriers that have deliberately disguised their identity to evade enforcement actions issued against them.

This testimony provides information on both of these programs, based on two recent GAO reports on the oversight challenges FMCSA faces in identifying high risk motor carriers for intervention (GAO-14-114), and chameleon carriers (GAO-12-364), respectively.

## **Motor Carrier Safety**

### *Improvements to Data-Driven Oversight Could Better Target High Risk Carriers*

#### **What GAO Found**

The Federal Motor Carrier Safety Administration (FMCSA) has taken steps toward better oversight of motor carriers by establishing the Compliance, Safety, Accountability (CSA) and chameleon carrier vetting programs; however, FMCSA could improve its oversight to better target high risk carriers. The CSA program oversees carriers’ safety performance through roadside inspections and crash investigations, and issues violations when instances of noncompliance with safety regulations are found. CSA provides FMCSA, state safety authorities, and the industry with valuable information regarding carriers’ performance on the road.

A key component of CSA—the Safety Measurement System (SMS)—uses carrier performance data collected from inspections and investigations to calculate safety scores for carriers and identify those at high risk of causing a crash. The program then uses these scores to target high risk carriers for enforcement actions, such as warning letters, additional investigations, or fines. However, GAO’s 2014 report identified two major challenges that limit the precision of the SMS scores and confidence that these scores are effectively comparing safety performance across carriers.

First, SMS uses violations of safety-related regulations to calculate a score, but GAO found that most of these regulations were violated too infrequently to determine whether they were accurate predictors of crash risk. Second, most carriers lacked sufficient data from inspections and violations to ensure that a carrier’s SMS score could be reliably compared with scores for other carriers. GAO concluded that these challenges raise questions about whether FMCSA is able to identify and target the carriers at highest risk for crashing in the future. To address these challenges, GAO recommended, among other things, that FMCSA revise the SMS methodology to better account for limitations in available information when drawing comparisons of safety performance across carriers. FMCSA did not concur with GAO’s recommendation to revise the SMS methodology because it believed that SMS sufficiently prioritized carriers for intervention. Therefore, FMCSA has not taken any actions.

GAO continues to believe that a data-driven, risk-based approach holds promise, and efforts to improve FMCSA’s oversight could allow it to more effectively target its resources toward the highest risk carriers, and better meet its mission of reducing the overall crashes, injuries, and fatalities involving motor carriers.

GAO’s 2012 report found that FMCSA examined only passenger and household goods carriers as part of its chameleon carrier vetting program for new applicants. GAO found that by modifying FMCSA’s vetting program, FMCSA could expand its examinations of newly registered carriers to include all types of carriers, including freight carriers, using few additional staff resources. GAO recommended that FMCSA develop, implement, and evaluate the effectiveness of a data-driven, risk-based vetting methodology to target carriers with chameleon attributes. FMCSA concurred with GAO’s recommendation and has taken actions to address these recommendations.

PREPARED STATEMENT OF SUSAN A. FLEMING, DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

## **Motor Carrier Safety**

### *Improvements to Data-Driven Oversight Could Better Target High Risk Carriers*

Chairwoman Fischer, Ranking Member Booker, and Members of the Subcommittee:

I am pleased to be here today to discuss oversight of the U.S. Department of Transportation’s (USDOT) Federal Motor Carrier Safety Administration (FMCSA).

The commercial motor carrier industry is large and diverse, with more than 500,000 active motor carriers operating on U.S. roadways. FMCSA's primary mission of reducing crashes, injuries, and fatalities involving large trucks and buses is critical to the safety of our Nation's highways. To accomplish this mission, FMCSA engages in a range of activities designed to screen, identify, and target its resources toward the motor carriers that demonstrate characteristics or behaviors that increase the risk of crashing. Among these activities are new entrant safety audits and identification, or vetting, of "chameleon" carriers—motor carriers that have registered and been operating illegally in interstate commerce by using a new identity in an effort to disguise their former identity and evade enforcement actions issued against them by FMCSA.

FMCSA's oversight program—the Compliance, Safety, Accountability (CSA) program—is based on the Safety Measurement System (SMS), a data-driven approach for identifying motor carriers at risk of presenting a safety hazard or causing a crash.<sup>1</sup> SMS uses information collected during Federal and state roadside inspections and from reported crashes to calculate scores across seven categories that quantify a carrier's safety performance relative to other carriers.<sup>2</sup> The precision and accuracy of these scores is vital because FMCSA investigators and their state partners use SMS results to focus their resources on higher risk carriers and, through interventions, help reduce the number of motor carrier crashes, injuries, and fatalities. FMCSA currently posts most of the scores publicly on its website for use by industry stakeholders and the public.<sup>3</sup> FMCSA has indicated that a future rule-making will include some of the information used to calculate SMS scores to help determine a carrier's overall fitness to operate motor vehicles.

My statement today presents highlights from our two recent reports on the oversight challenges FMCSA faces in identifying high risk motor carriers.<sup>4</sup> Each of these reports contains detailed information on our objectives, scope, and methodology for performing this work. The work on which this statement is based was performed in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In summary, our recent work on FMCSA oversight found that the establishment of the CSA program and chameleon carrier vetting program are steps toward better oversight of motor carriers. Through the CSA program, FMCSA can provide the agency, state safety authorities, and the industry with valuable information regarding carriers' performance on the road and reach more carriers through interventions. However, while we continue to believe that a data-driven, risk-based approach holds promise, our work identified several major challenges that limit the precision of SMS scores and confidence that these scores are effectively comparing safety performance across carriers. These serious challenges raise questions about whether CSA is able to identify and target the carriers at highest risk for crashing in the future. In addition, our recent work on FMCSA's chameleon carrier vetting program found that using data analysis for targeting new applicants would allow FMCSA to expand its examinations of newly registered carriers to include new applicants of all types rather than just passenger and household goods carriers, using few or no additional staff resources. FMCSA has taken actions to address our recommendations related to the vetting of chameleon carriers; however, it has not taken action to address our recommendations to better account for limitations in the CSA program.

<sup>1</sup> FMCSA was required under section 4138 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) to "ensure that compliance reviews are completed on motor carriers that have demonstrated through performance data that they pose the highest safety risk." Pub. L. No. 109-59, § 4138, 119 Stat. 1144, 1745 (2005).

<sup>2</sup> Safety data obtained primarily from roadside inspections as well as from crash reports are sorted into six Behavior Analysis and Safety Improvement Categories (BASIC)—Unsafe Driving, Hours-of-Service Compliance, Driver Fitness, Controlled Substances and Alcohol, Vehicle Maintenance, and Hazardous Materials—associated with unsafe performance. In addition to the six BASICs, SMS also incorporates data based on a carrier's crash involvement.

<sup>3</sup> See <http://ai.fmcsa.dot.gov/sms/>

<sup>4</sup> GAO, *Federal Motor Carrier Safety: Modifying the Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers*, GAO-14-114 (Washington, D.C.: Feb 3, 2014); GAO, *Motor Carrier Safety: New Applicant Reviews Should Expand to Identify Freight Carriers Evading Detection*, GAO-12-364 (Washington, D.C.: Mar 22, 2012).

### **FMCSA's Method Does Not Effectively Identify High Risk Carriers**

As we reported in our February 2014 report, since CSA was implemented nationwide in 2010, it has been successful in raising the profile of safety in the motor carrier industry and providing FMCSA with more tools to increase interventions with carriers. We found that following the implementation of CSA, FMCSA was potentially able to reach a larger number of carriers, primarily by sending them warning letters. Law enforcement officials and industry stakeholders we interviewed generally supported the structure of the CSA program, in part because CSA provides data about the safety record of individual carriers, such as data on inspections, violations, crashes, and investigations, that help guide the work of state inspectors during inspections. However, despite these advantages, our report also uncovered major challenges in reliably assessing safety risk and targeting the riskiest carriers.

First, according to FMCSA, SMS was designed to use all safety-related violations of FMCSA regulations recorded during roadside inspections. For SMS to be effective in identifying carriers at risk of crashing, the violation information that is used to calculate SMS scores should have a relationship with crash risk. However, we found that the relationship between the violation of most of these regulations and crash risk is unclear, potentially limiting the effectiveness of SMS in identifying carriers that are likely to crash. Our analysis found that most of the safety regulations used in SMS were violated too infrequently over a 2-year period to reliably assess whether they were accurate predictors of an individual carrier's likelihood to crash.<sup>5</sup> Specifically, we found that 593 of the 754 regulations we examined were violated by less than one percent of carriers.<sup>6</sup> Of the remaining regulations with sufficient violation data, we found 13 regulations for which violations consistently had some association with crash risk in at least half the tests we performed, and only two regulations had sufficient data to consistently establish a substantial and statistically reliable relationship with crash risk across all of our tests.

Second, most carriers lack sufficient safety performance data, such as information from inspections, to ensure that FMCSA can reliably compare them with other carriers. SMS scores are based on violation rates that are calculated by dividing a carrier's violations by either the number of inspections or vehicles associated with a carrier. The precision and reliability of these rates varies greatly depending on the number of inspections or vehicles a carrier has. Violation rates calculated for carriers with more inspections or vehicles will have more precision and confidence than those with only a few inspections or vehicles.<sup>7</sup> This statistical reality is critical to SMS, because for the majority of the industry, the number of inspections or vehicles for an individual carrier is very low. About two-thirds of carriers we evaluated operated fewer than four vehicles and more than 93 percent operated fewer than 20 vehicles.<sup>8</sup> Moreover, many of these carriers' vehicles were inspected infrequently. Carriers with few inspections or vehicles will potentially have estimated violation rates that are artificially high or low and thus not sufficiently precise for comparison across carriers. This creates the likelihood that many SMS scores do not accurately or precisely assess safety for a specific carrier. FMCSA acknowledged that violation rates for carriers with few inspections or vehicles can be less precise, but the methods FMCSA uses to address this limitation are not effective. For example, FMCSA requires a minimum level of data (*i.e.*, inspections or violations) for a carrier to re-

<sup>5</sup> FMCSA uses inspection and crash data for a carrier over a 2-year period to calculate a SMS score.

<sup>6</sup> While SMS includes approximately 800 of FMCSA's regulations, our analysis looked at the 754 regulations available for the time frame of our analysis in order to limit violations to those that had sufficient violation data to examine over time. To conduct our analysis, a regulation needed to be present both during our analysis observation period, December 2007 to December 2009, and our evaluation period, December 2009 to June 2011.

<sup>7</sup> Rate estimates become more precise with each additional observation. Estimates based on 10 to 20 observations are more precise than those based on 1 to 5 observations. However, the amount of data required in practice depends on the degree of imprecision the user is willing to accept for a given purpose. This trade-off, in turn, depends on how the user considers the consequences of inaccuracy.

<sup>8</sup> Our analysis included nearly 315,000 U.S.-based carriers that were under FMCSA's jurisdiction and, with reasonable certainty, were active during the period from December 2007 through June 2011. We considered a carrier active during this period if it received a state or Federal inspection, was involved in a crash, or reported the number of vehicles it operates to FMCSA. Information on inspections, violations, and crashes from December 2007 through December 2009, our observation period, was used to calculate SMS scores. We used crash information from the remaining 18 month period—from December 2009 through June 2011—referred to as our evaluation period, to determine these carriers' subsequent crash rates and involvement in crashes.

ceive an SMS score. However, we found that level of data is not sufficient to ensure reliable results.

Our analysis of the effectiveness of FMCSA's existing CSA methodology found that the majority of the carriers that SMS identified as having the highest risk for crashing in the future did not actually crash. Moreover, smaller carriers and carriers with few inspections or vehicles tended to be disproportionately targeted for intervention. As a result, FMCSA may devote intervention resources to carriers that do not necessarily pose as great a safety risk as other carriers. In our 2014 report, we illustrated that when SMS only considered carriers with more safety information, such as inspections, it was better able to identify carriers that later crashed and allowed for better targeting of resources. An approach like this would involve trade-offs; fewer carriers would receive SMS scores, but these scores would generally be more reliable for targeting FMCSA's intervention resources. FMCSA could still use the safety information available to oversee the remaining carriers the same way it currently oversees the approximately 72 percent of carriers that do not receive SMS scores using its existing approach.

Given the limitations of safety performance information, we concluded that it is important that FMCSA consider how reliable and precise SMS scores need to be for the purposes for which they are used. FMCSA reports these scores publicly and is considering using a carrier's performance information to determine its fitness to operate. FMCSA includes a disclaimer with the publicly released SMS scores, which states that the data are intended for agency and law enforcement purposes, and that readers should draw conclusions about a carrier's safety condition based on the carrier's official safety rating rather than its SMS score. At the same time, FMCSA has also stated that SMS provides stakeholders with valuable safety information, which can "empower motor carriers and other stakeholders. . . to make safety-based business decisions."<sup>9</sup> As a result, some stakeholders we spoke to, such as industry and law enforcement groups, have said that there is a lot of confusion in the industry about what the SMS scores mean and that the public, unlike law enforcement, may not understand the limitations of the system.

Based on the concerns listed above, in our 2014 report we recommended that FMCSA revise the SMS methodology to better account for limitations in available information when drawing comparisons of safety performance across carriers. We further recommended that FMCSA's determination of a carrier's fitness to operate should account for limitations we identified regarding safety performance information. FMCSA did not concur with our recommendation to revise the SMS methodology because, according to FMCSA officials, SMS in its current state sufficiently prioritizes carriers for intervention purposes. However, FMCSA agreed with our recommendation on the determination of a carrier's fitness to operate, but has not yet taken any actions. As I will discuss later in my statement, we continue to believe that FMCSA should improve its SMS methodology.

#### **FMCSA Cannot Readily Determine the Number of Chameleon Carriers**

As we reported in our March 2012 report, FMCSA also faces significant challenges in determining the prevalence of chameleon carriers, in part, because there are approximately 75,000 new applicants each year. As mentioned earlier, chameleon carriers are motor carriers disguising their former identity to evade enforcement actions. FMCSA has established a vetting program to review each new application for operating authority submitted by passenger carriers (intercity and charter or tour bus operators) and household goods carriers (hired by consumers to move personal property). According to FMCSA officials, FMCSA vetted all applicants in these groups for two reasons: (1) these two groups pose higher safety and consumer protection concerns than other carrier groups and (2) it does not have the resources to vet all new carriers. While FMCSA's exclusive focus on passenger and household goods carriers limits the vetting program to a manageable number, it does not account for the risk presented by chameleon carriers in the other groups, such as for-hire freight carriers,<sup>10</sup> that made up 98 percent of new applicants in 2010.

We found that using data analysis to target new applicants would allow FMCSA to expand its examinations of newly registered carriers to include new applicants of all types using few or no additional staff resources. Our analysis of FMCSA data found that 1,136 new motor carrier applicants in 2010 had chameleon attributes,

<sup>9</sup> CSA, CSMS Methodology, Version 3.0.1 Motor Carrier Preview, Revised August 2013.

<sup>10</sup> FMCSA oversees two main groups of interstate motor carriers: (1) private carriers, who run an internal trucking operation to support a primary business in another industry, such as a retail store chain, and (2) for-hire carriers that sell their trucking services on the open market. Private and for-hire motor carriers seeking to operate in interstate commerce must register with FMCSA. For-hire carriers are also required to obtain operating authority from FMCSA, which dictates the type of operation the carrier may run and the cargo it may carry.

of which 1,082 were freight carriers.<sup>11</sup> Even with the large number of new applicant carriers and constraints on its resources, we concluded in 2012 that FMCSA could target the carriers that present the highest risk of becoming chameleon carriers by using a data-driven, risk-based approach.

As a result of these findings, we recommended that FMCSA use a data-driven, risk-based approach to target carriers at high risk for becoming chameleon carriers. This would allow expansion of the vetting program to all carriers with chameleon attributes, including freight carriers. FMCSA agreed with our recommendations. In June 2013, to help better identify chameleon carriers, FMCSA developed and began testing a risk-based methodology that implemented a framework that closely follows the methodology we discussed in our report. FMCSA's preliminary analysis of this methodology indicates that it is generally successful in providing a risk-based screening of new applicants, which it plans to use as a front-end screening methodology for all carrier types seeking operating authority. By developing this risk-based methodology and analyzing the initial results, FMCSA has developed an approach that may help keep unsafe carriers off the road.

To further help Congress with its oversight of FMCSA and motor carrier safety, we also have on-going work on FMCSA's hours-of-service regulations, DOD's Transportation Protective Services program,<sup>12</sup> and commercial driver's licenses.<sup>13</sup> This work is in various stages, and we expect to issue the final reports later this year.

In conclusion, the commercial motor carrier industry is large and dynamic, and FMCSA plays an important role in identifying and removing unsafe carriers from the roadways. With over 500,000 active motor carriers, it is essential to examine ways to better target FMCSA's resources to motor carriers presenting the greatest risk. To effectively do this, FMCSA must use a number of strategies to identify and intervene with high risk carriers. We continue to believe that a data-driven, risk-based approach for identifying high risk carriers holds promise. FMCSA's preliminary steps to implement a risk-based screening methodology have the potential to identify more high risk chameleon carriers. However, without efforts to revise its SMS methodology, FMCSA will not be able to effectively target its intervention resources toward the highest risk carriers and will be challenged to meet its mission of reducing the overall crashes, injuries, and fatalities involving large trucks and buses.

Chairwoman Fischer, Ranking Member Booker, and Members of the Subcommittee, this concludes my prepared remarks. I would be pleased to answer any questions you or other Members may have at this time.

Senator FISCHER. Thank you, Ms. Fleming.  
Mr. Hart.

**STATEMENT OF HON. CHRISTOPHER A. HART, ACTING  
CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD**

Mr. HART. Thank you.

Good morning, Chairman Fischer, Ranking Member Booker, and members of the Subcommittee. Thank you for the opportunity to appear before you today on behalf of the National Transportation Safety Board.

Far too many highway crashes involve large trucks and buses. This poses a disproportionate hazard to occupants in passenger vehicle crashes that in 2012 alone killed nearly 4,000 people and injured more than 100,000. A recent upward trend in crashes involving large trucks prompted the NTSB to include strengthening commercial truck safety on its 2015 most wanted list of the most critical changes that are needed for transportation safety.

<sup>11</sup>For the purposes of our analysis, we defined chameleon attributes as those that met two criteria: (1) They submitted registration information that matched information for a previously registered carrier; (2) The previously registered carrier had a motive for evading detection, such as having a history of safety violations or having filed for bankruptcy.

<sup>12</sup>DOD's Transportation Protective Services program uses commercial motor carriers to transport hazardous and sensitive materials such as arms, ammunition, and explosives, and certain classified shipments.

<sup>13</sup>FMCSA conducts ongoing verification of State CDL program compliance and catalogs the results.

While there has been progress since the establishment of FMCSA in 1999, this death toll is completely unacceptable. The NTSB has issued 126 safety recommendations to the FMCSA and more than half of them remain open. Their implementation would enable the FMCSA to have a more immediate and lasting effect on reducing highway deaths.

Today, I will focus on three areas: fatigue, oversight, and technology. The NTSB has long made recommendations on reducing driver fatigue, including hours of service, electronic logging devices, diagnosis and treatment of obstructive sleep apnea, education and training, effective countermeasures, and risk management programs. We are currently investigating a major crash that the Ranking Member referred to last year involving a large truck near Cranbury, New Jersey where fatigue may have been an issue. Fatigue is a contributing factor in far too many truck and bus crashes, and our research finds that it is the most frequently cited probable cause in crashes that are fatal to the driver.

The NTSB has made recommendations to FMCSA's predecessors and DOT to use science-based principles to revise hours of service regulations for commercial drivers; ensure that rule-enabled drivers to obtain 8 hours of continuous sleep, and illuminate provisions that allow splitting of sleep periods. In 2010, the FMCSA issued an NPRM to change the hours of service rule for truck drivers, but the NPRM unfortunately left passenger carrier rules unchanged.

We support those provisions that are scientifically based to reduce continuous duty driving time, encourage breaks, promote nighttime sleep, and foster consistent schedules. We also support limiting use of the restart provision and require that the 34-hour restart interval include at least two consecutive off-duty periods during the nighttime circadian low point to increase opportunities for drivers to get adequate restorative sleep.

The NTSB sees a disturbing trend of crashes involving fatigue drivers operating well in excess of hours of service limitations. We have long advocated using electronic logging devices for monitoring duty time. These enable tracking hours more effectively preventing violations and ensuring adequate time for restorative rest. The FMCSA must expeditiously issue the final electronic logging device rule to increase hours of service compliance for maximum safety.

Regarding FMCSA oversight, many of the NTSB's investigations have identified shortcomings in FMCSA truck and bus company oversight in which a deficient compliance review program has allowed unsafe businesses to continue operating. The two most important safety areas are driver performance and vehicle condition. And the FMCSA should emphasize both of these reviews. An unsatisfactory rating in either area should disqualify operators.

In 2011, we recommended that the FMCSA include safety measurement rating scores in its compliance review methodology for determining a carrier's fitness to operate. DOT has long plan changes to this process, and now, after long delays, predicts a rulemaking later this year. Any further delays will keep unsafe, high-risk carriers on our highways even longer endangering the motoring public.

Finally, I would like to discuss promising new technologies. Technologies such as tested and proven life-saving systems for speed

limiting, forward collision warning, and electronic stability control, offer significant potential for reducing crashes. We urge the DOT Secretary to direct FMCSA and National Highway Traffic Safety Administration to expedite wider deployment of these technologies and to commercial motor vehicles.

Crashes take far too many lives and forever change even more lives. Crashes also provide unique opportunities to identify safety issues. Unfortunately, too many of the problems outlined today have caused multiple crashes over a number of years and we keep seeing them over and over again.

These must be addressed. Transportation safety is too important to continue repeating deadly mistakes and we must do better.

Thank you for inviting me today to testify, and I am happy to answer any questions you may have.

[The prepared statement of Mr. Hart follows:]

PREPARED STATEMENT OF HON. CHRISTOPHER A. HART, ACTING CHAIRMAN, ON  
BEHALF OF THE NATIONAL TRANSPORTATION SAFETY BOARD

Good morning, Chairman Fischer, Ranking Member Booker, and 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 reauthorization of the Federal Motor Carrier Safety Administration (FMCSA).

The NTSB is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents and incidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of accidents and other transportation events and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special transportation safety studies and coordinates the resources of the Federal Government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. Every day, there are thousands of accidents on our Nation's highways resulting in tens of thousands of fatalities each year. Unfortunately, far too many of these highway crashes involve large trucks and buses, and the number of crashes involving large trucks has been increasing for the last several years.

Last month, the NTSB released its Most Wanted List of Transportation Safety Improvements for 2015. Each year, we develop our Most Wanted List to highlight safety issues identified from our accident investigations. One of the Most Wanted areas included this year is to "Strengthen Commercial Trucking Safety." We rely on commercial trucks to deliver food and goods to our local grocery stores, medical supplies to our pharmacies and hospitals, and packages to our loved ones. But because of their sheer size, weight, and physical properties, commercial trucks introduce a disproportionate hazard to passenger vehicle occupants in a crash. We must not lose sight of some very alarming statistics concerning the staggering number of deaths and injuries that occur each year in crashes involving large trucks and buses. In 2012 alone, nearly 4,000 people were killed and more than 100,000 people were injured in such crashes.

The primary mission of the FMCSA is to reduce crashes, fatalities, and injuries involving large trucks and buses. In the Motor Carrier Safety Improvement Act of 1999, the legislation establishing the FMCSA, among the stated Congressional findings in support of creating the new agency was the following statement: "The current rate, number, and severity of crashes involving motor carriers in the United States are unacceptable." While there has been considerable reduction in the number of fatalities since the establishment of the FMCSA, much more needs to be done; the death toll is still unacceptable.

Since 1999, the NTSB has issued 126 safety recommendations to the FMCSA, 65 of which are currently in an "open" status. Implementation of the "open" recommendations would strengthen the FMCSA's capability to have an immediate and lasting effect on reducing loss of life on our highways. My testimony will provide a brief overview of some of our recent crash investigations and safety recommendations. I will also discuss the NTSB's concern regarding the upward trend in crashes involving large trucks, the need for improved oversight and vehicle maintenance within the motor carrier industry, the importance of combatting driver fatigue and

distraction, driver's medical fitness for duty, and the life-saving benefits of collision avoidance technology.

### Recent Crashes and Accident Trends

During the past two years, the NTSB launched investigative teams to 16 major highway crashes involving large trucks, motorcoaches, and school buses.<sup>1</sup> These crashes resulted in 50 fatalities and more than 230 injuries. In 2014, the NTSB completed investigations involving a commercial truck with an oversized load that collided with the I-5 bridge over the Skagit River in Mount Vernon, Washington, resulting in a bridge span collapse and bridge replacement costs in excess of \$4 million; and a truck-train collision in Rosedale, Maryland, resulting in the derailment of a freight train and a post-crash fire and explosion.

Ongoing NTSB crash investigations that we will complete within the next year include the following: a truck-tractor trailer combination unit that crossed a median and collided with a motorcoach transporting high school students and adult chaperones in Orland, California, killing 10 people and injuring 37 others; a truck-tractor trailer combination unit that collided with a limousine van in a work zone in Cranbury, New Jersey, killing one person and injuring eight; a truck-tractor trailer combination unit that crossed a median and collided with a mid-size bus transporting a college softball team in Davis, Oklahoma, killing four and injuring 13; and a truck-tractor trailer combination unit that collided with emergency vehicles assisting a disabled vehicle in Naperville, Illinois, killing an Illinois State Tollway worker and seriously injuring an Illinois State trooper.

In addition to investigating crashes, the NTSB closely monitors highway accident statistics and examines trends in data. The NTSB is very concerned about the increase in fatalities and injuries, and the rate at which large truck crashes are occurring. In 2009, there were 3,380 people killed in crashes involving large trucks; in 2010—3,686 fatalities; in 2011—3,781 fatalities; and in 2012—3,921 fatalities. During this four-year period, not only did the death toll increase, but the rate of large truck crashes per vehicle miles traveled and per number of registered vehicles also increased.<sup>2</sup>

### Motor Carrier Oversight

The NTSB has a long history of making recommendations to the FMCSA and its predecessors to improve the safety of the motor carrier industry. Our investigations focus on identifying the underlying causes of accidents and the safety improvements necessary to prevent their recurrence. Many of our investigations have identified shortcomings in the FMCSA's oversight of truck and bus companies. We have repeatedly found instances in which deficiencies in the FMCSA compliance review program allowed companies with serious safety problems to continue operations.

The two most important areas related to safe motor carrier operations are the performance of drivers and the condition of vehicles. The NTSB believes that the FMCSA should emphasize both of these critical elements in its compliance reviews and disqualify an operator that receives an unsatisfactory rating in *either* vehicle or driver areas. The current compliance review process is inadequate and limits the FMCSA's ability to remove unsafe carriers from our highways before they are involved in a catastrophic crash.

The NTSB's original recommendation regarding this issue was made in 1999 in response to a motorcoach rollover crash in Indianapolis, Indiana, that killed two passengers and injured 13. The motorcoach had only 50 percent braking efficiency and the FMCSA post-accident compliance review resulted each of the carrier's 10 vehicles being placed out of service. Because the company had been inspected nine times between 1987 and 1995, the issues with vehicle maintenance should have been obvious prior to the crash. In 1994, even though 63 percent of the operator's vehicles met the out-of-service criteria, it received a "conditional" rating for vehicle factors. Because all the other factors were rated "satisfactory," the operator was given an overall rating of "satisfactory" and continued to operate. As a result of our investigation of this crash, the NTSB recommended that the FMCSA emphasize both driver performance and vehicle condition in its compliance reviews, and that an unsatisfactory rating in either area should prohibit the carrier from operating.<sup>3</sup>

<sup>1</sup>Crash locations and dates: Elizabethtown, KY (03/02/13); Irving, TX (04/11/13); Mount Vernon, WA (05/23/13); Rosedale, MD (05/28/13); Murfreesboro, TN (06/13/13); Annapolis, MD (07/19/13); Naperville, IL (01/27/14); Centerville, LA (02/15/14); Orland, CA (04/10/14); Anaheim, CA (04/24/14); Cranbury, NJ (06/07/14); Red Lion, DE (09/21/14); Davis, OK (09/26/14); Knoxville, TN (12/21/14); Queenstown, MD (01/10/15); and Penwell, TX (01/14/15).

<sup>2</sup>*Pocket Guide to Large Truck and Bus Statistics, October 2014 Update*, Federal Motor Carrier Safety Administration, Office of Analysis, Research, and Technology.

<sup>3</sup>H-99-6

In the years following, the NTSB investigated additional motorcoach accidents that involved this same issue: a five-fatality motorcoach crash in Victor, New York, in 2002, and a 23-fatality motorcoach fire near Wilmer, Texas, in 2005. Because of the FMCSA's lack of progress, the NTSB cited the agency in the probable cause of the Wilmer accident, stating: "Contributing to the accident was the Federal Motor Carrier Safety Administration's ineffective compliance review system, which resulted in inadequate safety oversight of passenger motor carriers."

In 2007 and 2008, additional NTSB investigations continued to show that the FMCSA compliance review and oversight program was dysfunctional. In our investigations of a 17-fatality motorcoach crash in Atlanta, Georgia, in 2007, and a fatal motorcoach rollover crash in Victoria, Texas, in 2008, we continued to reiterate our previous recommendations for changes to the compliance review process.

In 2008, the FMCSA launched an operational model test of the Compliance, Safety, Accountability (CSA) program (originally named the Comprehensive Safety Analysis 2010 initiative), which promised to be a complete revamp of the compliance review process. The measurement component of the CSA program is the risk-based Carrier Safety Measurement System (CSMS), which quantifies the on-road performance of motor carriers to prioritize enforcement resources. Since the implementation of the CSMS, the NTSB has found that the safety measurement scores will often accurately predict serious safety deficiencies in a company's operation. Unfortunately, however, in many of the crashes we investigated, there was insufficient intervention prior to the accident to remove the unsafe carrier from operation.

In 2011, following the NTSB's investigation of a 15-fatality motorcoach crash in New York City, we recommended that the FMCSA include safety measurement rating scores in the methodology used to determine a carrier's fitness to operate.<sup>4</sup> The final report urged the FMCSA to move forward more expeditiously on finalizing the Safety Fitness Determination (SFD) process to help remove unsafe motor carriers and their drivers from the Nation's highways.

According to the February 2015 U.S. Department of Transportation (DOT) Significant Rulemakings Report, FMCSA planned to initiate its rulemaking to propose changes to the SFD process in 2007, but did not do so until September 2009. The agency's plan to publish a notice of proposed rulemaking (NPRM) in March 2008 is now predicted to occur in July of this year. The NTSB is very concerned about the continued delay in the release of the SFD rulemaking. Over 15 years has passed since we first called attention to problems with the FMCSA's compliance review process and the oversight program remains dysfunctional. Prolonged deferral of rulemaking will continue to allow many unsafe, high-risk carriers to operate on our highways without intervention, posing a significant risk to the motoring public.

#### *FMCSA Effective Use of Resources*

The task facing the FMCSA is enormous and its resources are limited. With about 1,000 dedicated and outstanding employees, the FMCSA regulates a diverse industry consisting of more than 539,000 interstate truck and bus companies, 10.5 million large trucks, 760,000 buses, and 5.6 million commercial drivers. In comparison, the Federal Aviation Administration has over seven times the number of employees who assist in regulating a much smaller industry of airline companies, aircraft, and pilots. It is vitally important that the FMCSA employ a collaborative, transparent, and data-driven approach to address the highest risk motor carriers, drivers, and vehicles. Due to its limited resources, the FMCSA is able to complete an annual compliance review for only about 3 percent of the 539,000 active interstate motor carriers.

Given the unacceptably low compliance review rate of the motor carrier industry, it is of utmost importance that the FMCSA maximize the effectiveness of onsite reviews. The NTSB, however, has questioned the effectiveness of these reviews. In 2013, for example, the NTSB investigated four commercial motor vehicle crashes, which together resulted in 25 deaths and 83 injuries. Data collected for each motor carrier presented "red flags" that should have led to strong intervention by the FMCSA; information such as longstanding and insufficient safety management practices, poor performance during roadside inspections, and law enforcement data indicating that the companies posed a significant risk and hazard to the motoring public. In each case, FMCSA safety investigators had visited the company prior to the crash and given it a clean bill of health, but immediately following the crash—after an NTSB investigation—the FMCSA found significant safety deficiencies and in three of the four cases, declared the company an imminent hazard, and placed it

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<sup>4</sup>H-12-17

out of service. As a result of these recent NTSB investigations, we made two recommendations to the DOT to conduct an internal audit of processes at the FMCSA.<sup>5</sup>

On February 3, 2014, in response to these recommendations, the DOT convened a task force to conduct an independent review of the compliance review process under the direction of the DOT Safety Council. NTSB staff met with task force members to provide additional views and information. It is our understanding that the review was completed in the summer of 2014 and today—9 months later—it has not yet been released, but is still with the Secretary of Transportation. The NTSB looks forward to seeing the study results and what changes are proposed to improve the effectiveness of the FMCSA compliance review process.

*Oversight of New Entrant and Reincarnated Motor Carriers*

In addition to ensuring adequate oversight of the motor carrier industry, the NTSB has long recommended that the FMCSA implement additional safeguards to ensure that new entrant carriers are safe before beginning operations. Although we commend the FMCSA for issuing a final rule in 2008 that strengthened requirements for new entrant carriers, additional processes need to be in place to keep carriers from going out of business and then restarting as a new motor carrier with a different company name and DOT number.

In 2002, the NTSB investigated a crash involving a truck-tractor semitrailer collision with a Greyhound bus in Loraine, Texas, that resulted in three deaths. Our investigation revealed that when the trucking company owner submitted his application, he lied about his knowledge of regulations, his compliance management systems, and a drug conviction for possession of large amounts of marijuana. The owner also failed to maintain required records on his drivers or vehicles, have a drug and alcohol program, and conduct background checks of drivers. He also dispatched the accident driver knowing that he did not have a CDL or a medical certificate. At that time, the process of becoming a motor carrier was not complicated. The owner of a truck or bus company merely needed to fill out an online form and pay a small fee to receive operating authority from the FMCSA with practically no agency review or follow-up of new entrant motor carriers. As a result of that investigation, the NTSB recommended that the FMCSA require new motor carriers to demonstrate their safety fitness prior to obtaining new entrant operating authority.<sup>6</sup>

Unfortunately, NTSB investigations have discovered unscrupulous motor carriers using the new entrant program to evade enforcement action or an out-of-service order by going out of business and then reincarnating as a brand new company. The NTSB found this to be the case with the motorcoach operator involved in the 17-fatality Sherman, Texas, crash in 2008. After losing its authority to operate because of an unsatisfactory compliance review rating, the operator subsequently applied for new authority under a new name as a new entrant. The NTSB concluded that the FMCSA processes were inadequate to identify the operator as a company that was simply evading enforcement action. We recommended that the FMCSA evaluate the effectiveness of its New Applicant Screening Program.<sup>7</sup>

The NTSB found additional deficiencies with the FMCSA's new entrant program during the investigation of a 2008 accident in which the driver fell asleep and the motorcoach overturned in Victoria, Texas, killing one person. The FMCSA failed to notice that the operator reincarnated as a new operator shortly after the crash. As a result, the NTSB issued recommendations requesting that the FMCSA develop methods to identify reincarnated carriers and seek authority to deny or revoke their operating authority.<sup>8</sup> In September 2009, the FMCSA's Motor Carrier Safety Advisory Committee echoed the NTSB's position that new entrants should be evaluated before being allowed to operate.

In 2011, the NTSB investigated a multiple-fatality motorcoach rollover crash near Doswell, Virginia. We found that the motorcoach operator did not undergo a safety audit until it had been in business for nearly two years. Although the carrier had no effective safety programs in place and had safety deficiencies in three important areas, it passed the new entrant audit and the FMCSA approved its application for operating authority. As a result of the Doswell investigation, the NTSB recommended that the FMCSA review with each new entrant motor carrier a structured process to identify the root cause of safety risks and maintain an effective safety assurance program.<sup>9</sup>

<sup>5</sup>H-13-39 and H-13-39

<sup>6</sup>H-03-02

<sup>7</sup>H-09-21

<sup>8</sup>H-09-34

<sup>9</sup>H-12-31

In 2012, the FMCSA and state commercial motor vehicle enforcement personnel completed more than 34,000 new entrant safety audits. Unfortunately, however, NTSB investigations continue to identify issues regarding the program's effectiveness. In 2013, the NTSB investigated a highway–railroad grade crossing collision in Rosedale, Maryland, in which a single-unit truck crossed in front of a freight train, resulting in the train's derailment, a post-crash fire, and an explosion involving hazardous materials. The trucking company had been in the new entrant program for an extended time after failing its initial safety audit and it submitted multiple corrective action plans. Nevertheless, neither the FMCSA nor state enforcement personnel followed up to ensure that it had adequate safety controls. As a result of this crash investigation, the NTSB recommended that the FMCSA require a full compliance review of new entrants that fail their initial safety audits.<sup>10</sup>

### Vehicle Maintenance

The NTSB has made numerous recommendations over the years on the safety of commercial motor vehicles and has found serious deficiencies in critical vehicle components such as brakes and tires. Unfortunately, experience has demonstrated that this is not an anomaly. Year after year, roadside inspectors have found that about 20 percent of commercial motor vehicles are in a condition serious enough to render them out of service.

The NTSB has taken issue with the FMCSA's oversight of vehicle inspections including inspections of commercial motorcoaches. Following the eight-fatality Tallulah, Louisiana, and the 17-fatality Sherman, Texas, motorcoach crashes, the NTSB recommended that the FMCSA provide adequate oversight of private inspection garages.<sup>11</sup>

In crashes involving a school bus in Mountainburg, Arkansas, and a dump truck in Glen Rock, Pennsylvania, the NTSB found that the FMCSA lacked adequate oversight of pre-trip brake inspections, brake inspector qualifications, and formal brake inspector training.<sup>12</sup> The Glen Rock crash prompted the NTSB to recommend that drivers be required to demonstrate proficiency in air-brake vehicles and to understand the dangers of adjusting automatic slack adjusters.<sup>13</sup>

The NTSB found out-of-adjustment and defective brakes to be contributing factors in three of its recent crash investigations: a six-fatality truck-tractor trailer combination unit collision with an Amtrak train in Miriam, Nevada; a truck–school bus crash in Chesterfield, New Jersey; and an eight-fatality motorcoach accident in San Bernardino, California.

The NTSB has also found problems with commercial vehicle tires. A catastrophic failure can result when a speed-restricted tire is used above 55 mph for extended periods. Although this was not the cause of the motorcoach accident in Tallulah, Louisiana, the inspection process failed to identify the speed-restricted tires on this vehicle even though it operated on major highways. The NTSB made recommendations to correct this deficiency.<sup>14</sup>

### Driver Fatigue

The NTSB has a long history of making recommendations to reduce driver fatigue and the likelihood of related highway crashes including recommendations on hours of service (HOS), electronic logging devices (ELDs), diagnosis and treatment of obstructive sleep apnea (OSA), education and training, vehicle-and environment-based countermeasures, and risk management programs.

Estimates of the prevalence of driver drowsiness in highway crashes vary widely—from 1 percent of all police-reported crashes to 24 percent of fatal crashes—based on different databases and research methods.<sup>15,16</sup> Because of the absence of a diagnostic fatigue test, driver fatigue is believed to be a widely underreported cause of traffic crashes. The majority of police accident investigators do not code fatigue as being a contributing factor in a crash unless the driver reports falling asleep at the wheel or there is an independent witness. Unless the accident inves-

<sup>10</sup>H-14-27

<sup>11</sup>H-05-4 and H-09-20

<sup>12</sup>H-02-15, H-02-17, and H-02-18

<sup>13</sup>H-06-02

<sup>14</sup>H-05-03

<sup>15</sup>National Highway Traffic Safety Administration (2011), *Traffic Safety Facts: Drowsy Driving*, DOT-HS-811-449, reports 1.3 percent of all crashes, 2 percent of injury crashes, and 2.4 percent of fatal crashes involve a drowsy driver.

<sup>16</sup>National Highway Traffic Safety Administration (2006), *The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data*, DOT-HS-810-594, estimated that 22–24 percent of crashes and near-crash events involved moderate to severe driver drowsiness.

tigation entity reviews the driver's sleep and work history, and thoroughly evaluates the dynamics of the collision, a finding of driver fatigue as a contributing factor in an accident is highly unlikely.

In October 2014, the NTSB convened a forum on drowsy driving in the non-commercial vehicle driving environment. The forum brought together experts on fatigue and sleep research from around the world. In discussing the prevalence of drowsy driving crashes, experts pointed to a 2012 AAA Foundation for Traffic Safety study that used the National Highway Traffic Safety Administration's (NHTSA) National Automotive Sampling System (NASS) crashworthiness system data from 1999–2008 comprising 47,597 crashes and over 80,000 vehicles. The study estimated that 17 percent of fatal crashes involved at least one drowsy driver. Among crashes where at least one occupant was hospitalized, 13 percent involved a drowsy driver, and in overall statistics, about 7 percent of crashes involved at least one drowsy driver.

Based on these percentages, we can conservatively estimate that more than 5,000 people are killed each year in crashes involving fatigue.

#### *Hours of Service Regulations*

The NTSB has found fatigue as a contributing factor in far too many truck and bus crashes. In the 1990s, we conducted two safety studies of commercial truck crashes and found that fatigue was the most frequently cited probable cause or factor in investigated crashes that were fatal to the driver. Based on these studies, the NTSB recommended that the FMCSA use science-based principles to revise the HOS regulations for commercial drivers, ensure that the rule would enable drivers to obtain at least eight hours of continuous sleep, and eliminate sleeper berth provisions that allow for the splitting of sleep periods.

In December 2010, the FMCSA issued an NPRM to change the HOS rule for truck drivers but, unfortunately, left the rules for passenger carriers unchanged. The NTSB responded to the NPRM by supporting those provisions that are scientifically based and would reduce continuous duty or driving time, encourage break-taking, promote nighttime sleep, and foster scheduling patterns that are predictable and consistent with the normal human diurnal circadian rhythm. We also stated that limiting how often drivers may use the "restart" provision and requiring that the 34-hour restart interval include two periods between midnight and 6:00 a.m. should have the effect of increasing the amount of sleep that drivers receive during the restart period and may encourage drivers that are more diurnally oriented.

The NTSB acknowledges the challenges associated with establishing HOS regulations that promote safety and driver health while still providing drivers and operators with sufficient flexibility to make scheduling decisions and carry out operations in a competitive manner. Although many drivers do not have schedules that extend to the regulatory limits, some motor carriers have elected to incorporate the maximum on-duty period requirement into their supply chain planning, which results in scheduling drivers to the regulatory limits.

The NTSB will continue to support and advocate for HOS regulations that are likely to reduce driver fatigue. Nevertheless, we acknowledge that HOS rules alone cannot solve the problem of fatigue-related crashes. As discussed below, the NTSB has also made recommendations calling for a mandate for ELDs, detection and treatment of obstructive sleep apnea, and effective fatigue management programs.

#### *Electronic Logging Devices*

Although HOS rules have been in place for years, the NTSB continues to see a disturbing trend of fatigued drivers operating commercial motor vehicles well in excess of HOS limitations and subsequently being involved in catastrophic crashes. For over 35 years, the NTSB has advocated the use of ELDs to allow better monitoring of hours of service and driver fatigue. In 2007, following the NTSB's investigation of a truck-tractor trailer accident in Chelsea, Michigan, we recommended that the FMCSA require ELDs for HOS monitoring for all interstate commercial carriers.<sup>17</sup>

Properly designed, used, and maintained ELDs enable drivers, motor carriers, and authorized safety officials to track on-duty driving hours more effectively and accurately, thus preventing both inadvertent and deliberate HOS violations. Driver compliance with the HOS regulations helps ensure that they are provided time to obtain restorative rest and enable them to operate their commercial motor vehicles safely. It is vitally important that the FMCSA expeditiously issue a final ELD rule to increase compliance with HOS regulations and prevent future crashes, deaths, and injuries.

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<sup>17</sup>H-07-41

### *Obstructive Sleep Apnea*

OSA is a major and often undiagnosed sleep disorder. The NTSB has investigated several accidents in which OSA contributed to the fatigue of the driver, pilot, mariner, or train operator. In October 2009, we issued recommendations to the FMCSA addressing this safety problem to: (1) require drivers with a high risk for OSA to obtain medical certification that they have been appropriately evaluated and, if necessary, effectively treated for that disorder; and (2) provide guidance for commercial drivers, employers, and physicians about identifying and treating individuals at high risk of OSA.<sup>18</sup>

### *Fatigue Management Program*

Along with HOS regulations and tamperproof ELDs, fatigue management is the third leg of this critical safety stool. In 2008, following three fatigue-related bus crashes that occurred in Osseo, Wisconsin; Lake Butler, Florida; and Turrell, Arkansas—in which a total of 27 people died and 60 were injured—the NTSB requested the FMCSA develop a plan to deploy technologies in commercial vehicles to reduce fatigue-related accidents.<sup>19</sup> The Miami, Oklahoma, crash, involving a fatigued truck driver prompted us to reiterate these recommendations and make an additional recommendation to require that all motor carriers adopt a fatigue management program.<sup>20</sup>

### **Cell Phone Distraction**

The NTSB issued its first recommendation about cell phone use by a commercial driver in 2006, following an accident in Alexandria, Virginia, in which an experienced motorcoach driver, who was having a conversation on his hands-free cell phone, failed to move to the center lane and struck the underside of an arched stone bridge on the George Washington Parkway. Our investigation found the driver had numerous cues to change lanes at the appropriate time for sufficient clearance. In fact, not only was the driver familiar with the road, but he was also following another bus that had already moved to the appropriate center lane. Despite all this, he still did not notice the well-marked signage or any other cues as he approached the bridge. The crash was clearly caused by the driver's cognitive distraction due to his hands-free cell phone conversation.

Following the investigation of a 10-fatality truck-tractor trailer combination unit crossover crash in Munfordville, Kentucky, in March 2010, which was caused by the truck driver's distraction from cell phone use, the NTSB recommended that the FMCSA prohibit the use of both hand-held and hands-free cellular telephones by all CDL holders while operating a commercial vehicle.

In December 2011, the FMCSA and the Pipeline and Hazardous Materials Safety Administration published a joint rule, at 49 CFR 392.82, specifically prohibiting interstate truck and bus drivers from using hand-held cell phones while operating their vehicles. The rule, however, did not prohibit hands-free use of phones. In response, the NTSB expressed concerns that the rule did not go far enough and failed to address the cognitive distraction aspect of hands-free cell phone usage. Research has shown that both the visual-manual distraction of manipulating portable electronic devices (PEDs) and the cognitive distraction of using hand-free PEDs significantly impair driver performance. Although using a hands-free device to operate a PED may mitigate, to some degree, the visual-motor distractions associated with certain subtasks, such as keying in a phone number, it does not mitigate the cognitive distraction associated with being involved in a conversation while driving.

In the Rosedale, Maryland, crash discussed previously, a truck driver who was engaged in a hands-free cell phone conversation while approaching a highway-railroad grade crossing proceeded into the path of an approaching freight train. As noted above, the crash resulted in the derailment of the train, release of hazardous materials, and a post-crash fire and explosion. In this case, the NTSB again recommended that the FMCSA prohibit any use of a hands-free PED by a CDL holder while the driver is operating a commercial vehicle.<sup>21</sup>

### **Medical Fitness for Duty**

The NTSB has investigated many crashes involving commercial drivers with serious preexisting medical conditions that had not been detected or adequately evaluated. The most tragic example is the 1999 Mother's Day crash in New Orleans, Louisiana, in which a motorcoach driver lost consciousness while driving on an inter-

<sup>18</sup> H-09-15 and H-09-16

<sup>19</sup> H-08-13

<sup>20</sup> H-10-9

<sup>21</sup> H-14-26

state highway and crashed into an embankment, killing 22 passengers and injuring 21. The driver had multiple previously known serious medical conditions, including kidney failure and congestive heart failure, and he was receiving intravenous therapy for three to four hours a day, six days a week.

The FMCSA should be commended for implementing many of the Board's recommendations in this area and has taken important steps to address medical issues, including publishing a final rule on merging the CDL with the medical certificate and creating a national registry of certified medical examiners. Nevertheless, much work still remains to be done. For example, the FMCSA needs to ensure that medical certification regulations are periodically updated and examiners are qualified and know what to look for.<sup>22</sup> Additionally, although we commend the FMCSA for promulgating its National Registry for Certified Medical Examiners in 2012, we believe that the registry needs to include a tracking mechanism for driver medical examinations.<sup>23</sup>

The NTSB is hopeful that the registry will reduce the current practice of drivers "doctor shopping" to find someone who will find them to be medically fit. Likewise, a second level of review is necessary to identify and correct the inappropriate issuance of medical certifications.<sup>24</sup> The FMCSA must establish a system for reporting medical conditions that occur between examinations and develop a system that records all positive drug and alcohol test results and refusal determinations, requiring prospective employers and certifying authorities to query the system before making hiring decisions.<sup>25</sup>

#### **Crash Avoidance Technologies**

Collision avoidance technologies offer lifesaving benefits by helping to reduce crashes involving commercial motor vehicles. The NTSB currently has more than 80 open safety recommendations to NHTSA, many of which relate specifically to technologies that, if deployed on trucks and buses, would reduce and mitigate the severity of crashes. These technologies include forward collision warning systems, lane departure warning systems, electronic stability control systems, and speed-limiting technology. Many of these recommendations have not been acted upon by NHTSA. The NTSB encourages FMCSA collaboration with NHTSA to help expedite the development of performance standards and regulations requiring these important technologies.

#### **Closing**

The safety issues and crashes discussed today are a reminder that there is much to be done to improve the safety of commercial highway operations. Crashes provide a unique opportunity to identify real world issues, and the highway safety community should learn from its mistakes. Too many of the issues discussed today have been causal to multiple motor carrier and motorcoach crashes over a number of years, yet NTSB investigators see these factors again and again. Transportation safety is too important to the well-being of our citizens, our industry, and our economy to repeat past mistakes. We must do better.

Thank you for inviting me to testify today. I am happy to answer your questions.

Senator FISCHER. Thank you, Mr. Hart.

We will begin with 5 minute rounds.

Mr. Darling, your testimony mentioned that the FMCSA will implement changes to the CSA program in the coming months. Given that the GAO has provided recommendations on the CSA program over a year ago and we've heard from law enforcement that they have requested scores be removed from public view, why is the agency just taking action now and what reforms is the agency looking to make?

Mr. DARLING. Thank you for your question, Chairman.

I must start with saying that safety is our top priority. We believe that we need to maintain high safety standards on our highways every day. The information that is provided in the SMS data is good data. It is the data that we use to prioritize our interven-

<sup>22</sup> H-01-17 and H-01-19

<sup>23</sup> H-01-18

<sup>24</sup> H-01-21

<sup>25</sup> H-01-24 and H-01-25

tions. It is data that is used by the public to make decisions every day. It is data that I've also heard from carriers that they use to improve their performance.

SMS has only been in existence since 2010. We have continued to look to collaborate with industry, looked to collaborate with all stakeholders as we continue to improve the data that is provided in the SMS system. We have a continuous improvement team that is in place right now that is working with all stakeholders, and it takes time to make sure that we have a system that works. And we believe that we have a system that works today.

Senator FISCHER. I can appreciate that government can move slowly but we're all interested here in safety on our highways. For the citizens in this country, I would ask again: What reforms your agency is looking at with regards to the action being taken?

Mr. DARLING. Again, I start with safety and I start with our continuous improvements. We are in the process of looking at different changes. We are not a place today to identify changes. We have some changes that we will be implementing by the end of the year, but we are working through a process right now and it is a collaborative process.

Senator FISCHER. Do you have any specific changes you can tell us about at the hearing today?

Mr. DARLING. I don't, Chairman.

Senator FISCHER. OK, thank you.

Also, one of the challenges on this CSA program is that it doesn't distinguish really between crashes that a trucking company may cause and also those that it doesn't cause. I think that is an important fact that we be aware of. I am also aware that in your recent study on the limitations of using police accident reports that makes, I think, the fault determinations. In many cases, the fault is pretty obvious; I think. Like when a bridge in Cincinnati falls on a truck. Isn't that pretty glaring that it wasn't the trucker's fault?

I guess I would ask you: Is the agency really unable to determine that the truck didn't cause the bridge to fall on it?

Mr. DARLING. We are not in a position to make that determination, Chairman. We use various information to do that, particularly if difficult. That's why we issued our crash waiting study and put that out for comment from industry and from other stakeholders to make sure that they have input on how we look at crashes. We don't use crashes to weigh against a carrier unless we are going to change a carrier's safety rating, and then we look to causation at that point.

Senator FISCHER. But you are holding it against the carrier from the get-go after a crash; is that correct?

Mr. DARLING. We don't hold it against the carrier.

Senator FISCHER. But if you attribute the crashes to the trucking company, isn't that a black mark against them?

Mr. DARLING. We only attribute a crash against a company unless we change the safety rating of that company. That is what, before we do that, that is when we look at causation.

Senator FISCHER. And the causation changes the rating. Correct?

Mr. DARLING. No, it doesn't. We make a determination with a lot of factors before we change the rating.

Senator FISCHER. But that is one of the factors?

Mr. DARLING. It could be one of the factors.

Senator FISCHER. Are you looking at any reforms in determining the causation of accidents?

Mr. DARLING. We have our crash rating, a report, that we are waiting for comment. Comment will close at the end of this month and then we'll assess those and go to looking at how do we look at crash rating as a factor.

Senator FISCHER. OK. Thank you, sir.

Mr. DARLING. Yes.

Senator FISCHER. Senator Booker.

Senator BOOKER. The Ranking Member—

Senator FISCHER. Ranking Member.

Senator BOOKER.—Senator Nelson, who also has a better haircut than me.

**STATEMENT OF HON. BILL NELSON,  
U.S. SENATOR FROM FLORIDA**

Senator NELSON. Senator Booker is the Ranking Member of this Subcommittee and he is very kind. And I will just enter an opening statement in the record, and just say that 4,000 deaths a year are occurring as a result of truck and bus accidents. And this is serious business.

And then, just to top it off, Monday, a big semi plows into an SUV on the Buckman Bridge in Jacksonville and four people are dead. And so, it is just another reminder that we've got to take it very seriously.

So I defer to the Ranking Member of this subcommittee, Senator Booker.

Senator FISCHER. Thank you, Senator Nelson. I appreciate you, as Ranking Member, coming to the Committee hearing today, and your opening statement will be entered into the record.

[The prepared statement of Senator Nelson follows:]

PREPARED STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

I want to thank everyone for being here today to discuss a very important topic.

As we all know, the trucking industry is vital to the Nation's economy. In 2013, the trucking industry moved close to 9.7 billion tons of freight and collected over \$600 billion in freight revenues. The trucking industry also employs a significant number of people across the country, including 3.2 million drivers.

And, while the trucking industry is a safe industry, we need to do more to improve the trends to make it a safer one.

Each year, approximately 4,000 people are killed on our Nation's highways and roads in crashes involving a truck or bus, and nearly 100,000 others are injured.

This is extremely concerning, and according to the Department of Transportation truck crash injuries increased nearly 40 percent from 2009 to 2012.

Another troubling trend we are seeing is the use of appropriations riders to stop important safety rules.

In 2013, the Department implemented rules to help keep tried truckers from getting behind the wheel.

No sooner were they implemented, then last year's appropriations bill included a rider that stopped enforcement of some the most important pieces of the rule.

Eliminating part of the rule—a rule that simply requires truck drivers to stop for some rest once in a while—is a direct threat to public safety and could endanger motorists on America's highways.

There is no reason this kind of provision should be included in a spending bill. These discussions should happen in regular order in this Committee, which has jurisdiction.

At the end of the day what we all want are safer roads. But we need to have an open discussion about how we get there. If we work together on these rules and other issues confronting the trucking industry, I believe we can get to a safer outcome.

Senator FISCHER. Senator Booker.

Senator BOOKER. Thank you.

And I appreciate the Ranking Member of the entire Committee deferring to the Ranking Member of this Subcommittee and it is only due, as he has whispered in my ear, that New Jersey should go before Florida on most occasions, but you have seniority in this case. So I appreciate your graciousness.

I do want to dive in, if I can, to something that there has been a lot of talk about over the last months, which are hours of service. And I really want to get to these.

So can I start with Administrator Darling, and just ask you just quite bluntly: Right now, is it true that drivers can potentially be able to drive more than 80 hours a week?

Mr. DARLING. The answer is yes.

Senator BOOKER. And, do you see that as a threat to the safety of our roads and highways?

Mr. DARLING. I do see that as a threat to the safety of our roads today.

I want to thank you, Ranking Member Booker, for your support of the 2011 Hours of Service Rule. The U.S. DOT and FMCSA stand behind that rule. We promulgated that rule to save lives and protect people that we love every day who use our highways.

Senator BOOKER. If I may, because I—

Mr. DARLING. OK.

Senator BOOKER.—I've got limited time.

Mr. DARLING. Yes.

Senator BOOKER. Earlier, we heard testimony from a trucking company who said most drivers never come close to hitting the maximum weekly hours. Is that true in your estimation, that most truckers out there don't come close to that 80 hours?

Mr. DARLING. There is probably a majority that do not come close to that 80 hours, but there is a potential to work 80 hours with the current rule.

Senator BOOKER. And so, let's be more specific and drill down. The appropriations rider that I tried to stop, how does that impact driver fatigue, that rider which suspended some of these rules?

Mr. DARLING. The impact of the current rule is that, with our research on the 2011 rule, we found that drivers that have one hour of rest are more fatigued than drivers who have two hours of rest. The rule that we had in 2011 was a data-driven rule that was backed up by research and studies.

Senator BOOKER. So data-driven research studies. Be more specific. Did you just, sort of, read an article in *The New York Times* and come to that conclusion or what is data-driven in this? Can you—

Mr. DARLING. No. Data-driven is that we had studies that were conducted by—

Senator BOOKER. How many studies?

Mr. DARLING. There is probably close to 500 studies that we used in that rule, or looked at in that rule.

Senator BOOKER. Right, and so this wasn't your opinion—

Mr. DARLING. It is not my opinion, no. It is the opinion of the—

Senator BOOKER. In God we trust. I'm a man of faith, but everybody else bring me data.

Mr. DARLING. Yes.

Senator BOOKER. And you are saying you have 500 studies—

Mr. DARLING. There was—

Senator BOOKER.—that supported the rule.

Mr. DARLING. Yes. There were 500 studies that were reviewed as part of that study.

Senator BOOKER. OK.

So when it comes to accidents, how big of a role in general, could you assess for me, does driver fatigue cause, as we've seen this spike, this surge in accidents, how much does driver fatigue—is it other issues that are playing a role or is driver fatigue a cause or main cause, not your opinion, but according to a lot of the studies and data?

Mr. DARLING. Yes. We put out a truck causation study that looked at fatigue. And about 13 percent of the serious crashes were caused by fatigue. But, remember, fatigue is hard on fatal crashes because, you know, it is hard to tell if somebody has had rest or not so—

Senator BOOKER. With 13—fatalities—

Mr. DARLING. Yes.

Senator BOOKER.—crashes involving fatalities, but remember, we have tens of thousands of others—

Mr. DARLING. Yes.

Senator BOOKER.—do they play a role in a significant percentage of those—

Mr. DARLING. Yes. The answer to the question is, we believe, yes.

Senator BOOKER. Can I return to the Honorable Mr. Hart in the last minute that I have remaining? How do you respond to the hours of service provisions in the appropriations bill?

Mr. HART. We encouraged, again, science-based rules that enable humans to be human, which means sleeping at night. That's why we were very strong about having two periods of restorative sleep within the 34-hour restart based on, again, based on data.

Senator BOOKER. And, again, why is it important that you have that restart? Because, there are two concerns here: one is just working that 80 hours a week or more which seems to, by the data shown, that you begin to strain human endurance but then, number two, that restart rule is also a bit of a controversy. Could you just, in my last 20 seconds here, could you explain why that restart rule is important in accordance with the data and the research of hundreds and hundreds of studies?

Mr. HART. Based on our review of the data, two opportunities to have restorative sleep results in much less fatigue than only one opportunity for restorative sleep. That's why it was important for us to have two opportunities for restorative sleep within the restart period.

Senator BOOKER. Thank you very much.

Thank you, Chairman.

Senator FISCHER. Thank you, Senator Booker.

Senator Cantwell.

**STATEMENT OF HON. MARIA CANTWELL,  
U.S. SENATOR FROM WASHINGTON**

Senator CANTWELL. Thank you, Madam Chairman, and thank you for holding this important hearing.

Chairman Hart, I have a couple of questions for you if I could. One, you may well remember the tragic accident we had on the Skagit River Bridge on part of I-5 which collapsed?

Mr. HART. Yes, I do remember.

Senator CANTWELL. In 2013, very shocking for people all across America to think that a bridge that transports about \$38 million of trade between U.S. and Canada would collapse.

So part of the NTSB's deficiencies and safeguard, one of the recommendations was to ban non-emergencies by the pilot escort vehicle. And so, one of the things that was determined is that the actual hit occurred but the communication back was not communicated in a timely fashion. So you're recommending that that pilot vehicle, only if they are communicating with the car for, you know, extra-wide loads—

Mr. HART. Oversize, yes.

Senator CANTWELL.—oversize loads, that that is the only communication that should be going on between the pilot and that vehicle?

Mr. HART. Emergency communications, in general. And so, in that case, the escort car—actually there was an impact of the pole with the bridge, but the escort driver was on the phone at the time and, you know, that fact of the pole hitting the bridge was not communicated to the following truck.

Senator CANTWELL. And now, Washington State DOT has a \$17 million lawsuit against the truck driver, the company, the pilot car, the pilot car company, the owner of the truck, all of that because somebody was talking on the phone.

Anyway, I want to follow up on that recommendation. And also, because you're here and you had a blog, I understand, about—we had a hearing, I think that was yesterday, on this issue of railcar safety. And that part of your 2015 most wanted list of improvements, particularly in light of what happened in Virginia, do you believe that we need, that actually these cars that are out there to replace the 111s aren't really that great and that we need a thicker hull?

Mr. HART. We have several accidents, recently, involving the newer cars, the 1232 cars, including one in Canada, and we are reviewing them closely to determine whether the additional robustness is actually producing a positive result in the real world.

Senator CANTWELL. But you have doubts about that?

Mr. HART. Well, we are seeing enough concerns. Like in Lynchburg, the train was going less than 25 miles an hour and still breached a 1232 car. And so, we have concerns and we're collecting evidence based on the accidents about all those cars.

Senator CANTWELL. So you think a thicker shell, thicker hull?

Mr. HART. Well, it's a multiple approach including the thickness of the shell. We don't specify the specific thickness, we just say the robustness needs to be improved. But also thermal protection so that a car won't be engaged in that—fire from another car won't

cause, you know, the other cars to explode, and it's a multifaceted issue.

Senator CANTWELL. Besides the 1232 thickness?

Mr. HART. Yes. There's the head in protection; there's the thickness; there's the thermal protection. It's a multifaceted issue.

Senator CANTWELL. But we need more thickness than 1232s?

Mr. HART. Well, that's what we're trying to find out. We have only a few, you know, we have a very small end so far and we're trying to determine whether the thickness was the problem.

Senator CANTWELL. OK. I believe that we need more thickness. So, anyway, OK.

Thank you, Madam Chair.

Senator FISCHER. Thank you, Senator Cantwell.

Because the panel's here and willing, I assume we'll do another round of questions. And I will begin.

Ms. Fleming, FMCSA plans to issue a proposed rule to assign safety fitness ratings to motor carriers based on data and scores from its CSA scoring system, and I know that GAO issued a 2014 report on CSA which highlighted a number of problems and deficiencies. Since safety ratings determine whether carriers can operate in interstate commerce, do you believe that the CSA produces sufficiently reliable scores on which to base safety, fitness ratings?

Ms. FLEMING. We have not seen the rulemaking, but a lot of it depends on the information that is going to be used for making those determinations. If SMS scores are apart of that, our work shows that they don't do an accurate job of reflecting a carrier's crash risk. So it really goes back to the purpose.

It's sufficient for FMCSA and law enforcement to target interventions, but we have problems when it is being displayed publicly when the information does not, it's not reliable enough to compare safety performance across carriers. So I think that's the main thrust of our concern.

Senator FISCHER. And can you provide this Subcommittee with information regarding that audit of the 2014 Hours of Service Field Study, and what are some of the highlights of your work on that?

Ms. FLEMING. Unfortunately, that is ongoing work that is for you and for the colleagues over on Transportation Infrastructure. We'd be happy to brief you but, in a nutshell, we do have an ongoing study looking at hours of service; two aspects of it. We are looking at the strength and limitations of the completed field study, the efficacy of the rule, particularly looking at the two nighttime provisions, and then we're also looking at some of the potential impacts of the rule; on safety, health, and the economy. And we do plan to report out this summer on that.

Senator FISCHER. But you would be willing to brief us prior—

Ms. FLEMING. Absolutely.

Senator FISCHER.—to reporting that? Thank you.

Ms. FLEMING. Absolutely.

Senator FISCHER. And, Mr. Comé, ensuring the drivers properly attain their CDLs, I think that's a major effort in promoting safety. Can you tell us about the update on any successes or challenges that you're seeing with CDL fraud investigations?

Mr. COMÉ. Thank you.

We have not conducted any audit work, but we do continue to work to combat CDL fraud. I know, recently, we had a case where there were owners of a driver's school in New York where there was a test station scheme to provide answers to an estimated 500 applicants. And in that case, we were able to obtain a conviction.

It continues to be a problem that relates to sometimes as in this case, the actual people giving the test. Sometimes it is third-party testers who are involved with bringing people to the test themselves and we've seen gadgets such as Bluetooth and pencils with coding in them used to try to get around these tests.

Senator FISCHER. Can Congress do anything to help you with that?

Mr. COMÉ. I don't know of any specific, you know, legislative issues we're concerned with on the CDL side. It just continues to be, you know, an active part of our investigations.

Senator FISCHER. Thank you.

Senator Booker.

Senator BOOKER. I'm going to try to do a speed round here to get all my questions in.

So just real quick, in some great conversations I've had with the trucking industry looking for areas of compromise, they're insistent that most drivers don't go over 80 hours.

Mr. Darling, wouldn't it just be easier then if that's the case? Let's make a hard rule, nobody drives over 80 hours. Is that an easy way of looking for solutions to deal with this?

Mr. DARLING. I don't believe that's an easy way to deal with this. I think the rule that we had in place, Senator Booker, in 2011 dealt with allowing truckers to have adequate time to work but also to have adequate time and opportunity for rest. I think that we need to continue moving forward with the safety rule that we had in place in 2011.

Senator BOOKER. OK. So you think the restart rule is important?

Mr. DARLING. I think the restart rule is very important.

Senator BOOKER. OK.

And, sir, are there other things that we should be considering as solutions to deal with driver fatigue besides limiting hours and restart rule? Are there some other things about driver fatigue that we should be considering?

Mr. DARLING. I believe the study that we're going to do, that we're currently engaged in will help us understand some more of those opportunities to allow drivers to have additional rest.

Senator BOOKER. Thanks, Mr. Darling. I'm going to cut you off just because—

Mr. DARLING. Thank you.

Senator BOOKER. Mr. Hart, anything else we should be considering; and I do think that the current five hundredth and whatever study we're doing right now, as Ms. Fleming talked about, but are there other things as quick ideas you might want to give the Committee about ways to deal with driver fatigue?

Mr. HART. Thank you for the question.

Electronic logging is very important just so we would have with certainty as an indication of the hours that were driven. But we also know that what the driver does off-duty, we have no control over that. That's why fatigue management programs are so impor-

tant. So that, because we know self-diagnosis of fatigue is not reliable.

Fatigue management includes education of the people to help them diagnose their own fatigue. Also, obstructive sleep apnea evaluations are very important because we're seeing increasing incidents of that as well. So it's a multitude of issues that we're looking at.

Senator BOOKER. That's great. Senator Fischer and I are thinking about mandating watching C-SPAN because we think that'll put drivers to sleep.

[Laughter.]

Senator BOOKER. Real quickly. As the truck accident that was just mentioned by my Ranking Member, these big accidents can cost over \$20 million to compensate family care for the injured, the destruction that happens on highways of these explosions often, but the thing that is surprising to me to have found out is that the requirement is to carry \$750,000 in minimum insurance. That has not been increased in 30 years even though the cost of these, to all of us, is so dramatically high. It doesn't even account for inflation. And so taxpayers are fitting this bill. It's an externality, a really negative externality, that's put onto the public.

I'm wondering, Administrator Darling, FMCSA issued a report recognizing the current minimum insurance level is inadequate. What steps can Congress take in a surface transportation reauthorization to reduce the unfair economic burden that truck crashes place on the American people?

Mr. DARLING. Right now, we have an advance notice of the proposed rulemaking out which is data gathering. I think once we gather that data, we'll have more information remembering that the minimum insurance requirements are 30 years old and we want to make sure that we look at it. So I'd like to wait until we have an opportunity to review that advanced notice of proposed rulemaking before we take any more action.

Senator BOOKER. All right. And that will bring me to my last line of questioning for now which is the speed at which we're doing things. And I know that you're just the acting member, but in the last transportation reauthorization, Congress required that the final rule mandating something called the Electric Logging Devices—

Mr. DARLING. Yes.

Senator BOOKER.—be on trucks, be issued by October 2013. It was nearly a year and a half ago, I was still just a happy mayor, had not come down here yet. Just tell me, why is this important safety rule so far behind? We're talking about urgent things that could make a life or death difference. And is this kind of thing being put into a high priority?

Mr. DARLING. Thank you for that question and that's a good question. The Electronic Logging Device rule is a high priority because it is a safety rule as Chairman Hart talked about. It will help with understanding hours of service. We have made it a priority in my agency and we will get that rule, final rule, out and published by the end of this Fiscal Year.

Senator BOOKER. OK. And I just want to say as I conclude and I know that I can imagine that the chairman agrees with me, there

are a lot of just things languishing and overdue in FMCSA; rules that have been required by congressional statutes, something that I want to take a look at in trying to get the agency to keep up with the urgency and the mandates of Congress. It's just very important.

Mr. HART. Yes.

Senator BOOKER. All right.

Mr. HART. Yes.

Senator BOOKER. Thank you. Thank you so very much.

Senator FISCHER. Thank you, Senator Booker.

He's from New Jersey. He can get a lot of questions in because he speaks quickly. Being from Nebraska, we're a little slower but I expect great things from Minnesota.

So Senator Klobuchar.

**STATEMENT OF HON. AMY KLOBUCHAR,  
U.S. SENATOR FROM MINNESOTA**

Senator KLOBUCHAR. Very good. Yes, we'll go to the Midwestern piece now.

It's so good to see all of you. Thank you for your good work.

Ms. Fleming, the GAO's 2014 report regarding the Compliance Safety and Accountability program pointed to a number of changes that need to happen in order to make the program more effective and reliable. The report states "for Safety Measurements System to be effective in identifying carriers more likely to crash, the violations that the FMCSA uses to calculate SMS scores should have a strong predictive relationship with crashes. However, based on GAO's analysis of available information, most regulations used to calculate the scores are not violated often enough to strongly associate them with crash risk for individual carriers."

What specific changes would you recommend be made to improve the correlation between the scores and the crash risk?

Ms. FLEMING. I think that gets to the heart of our report which is that you need additional safety information. You know, we found two problems with the SMS scores. One, they don't accurately capture the carrier's risk and that's because there isn't a lot of safety information for the majority of carriers. And then, the problem is that we were not able to make a statistical link between the violations and predict whether a carrier is likely to crash in the future.

And so, what we were able to do, and I thank you for that question because it gets me to some of the concerns that FMCSA has with our work, is we were able to try to produce more reliable scores. Our approach basically said, instead of just the three to five inspections, we're going to try to use more safety information; we're going to use additional inspections on vehicles. And our work found that, by just doing that, we were able to identify two-thirds of high-risk carriers that crash in the future compared to the methodology that FMCSA is currently using which only identified one-third.

Senator KLOBUCHAR. That's a big change.

Ms. FLEMING. It's a big change. And yes, it involves tradeoffs. It involves maybe scoring less carriers but, and I think that's the point that my colleague makes, which is that we would only score 10 percent. But I think it's important to note that the current approach only scores 20 percent of all carriers. So by just doing some additional, by collecting some more additional information, you're

able to target FMCSA's limited resources to those carriers that truly pose the highest risk of crashing.

Senator KLOBUCHAR. OK. Thank you very much—

Ms. FLEMING. You're welcome.

Senator KLOBUCHAR.—for that thorough answer.

Mr. Darling, the sharp decline in traffic enforcement triggered truck inspections and the Motor Carrier Safety Assistance program has resulted in far fewer evaluations being reported. My concern is that fewer traffic enforcement inspections means fewer traffic enforcement violations are going into the unsafe driving basic in the CSA. And would allocating more enforcement resources lead to improved truck safety? Do you think that would make a difference?

Mr. DARLING. Thank you, Senator, for that question.

We are working hard to have more traffic enforcement. That's one of the tools we have in the toolbox to deal with safety and to manage risk. We've been working hard to include more truck enforcement. We believe that's one way of getting to, as you mentioned, getting to unsafe driving.

We have, in our GROW AMERICA proposal, provisions in the state grant programs that allow grant recipients to use that money for traffic enforcement. We are conducting training, currently, on traffic enforcement, and we also have a grant with the International Chiefs of Police to help us think about that issue. But traffic enforcement is one of the tools that we have that we believe is an important tool. The other tool being inspections and being interventions.

Senator KLOBUCHAR. OK. Well, I'm almost out of time here but I have a few questions I'll just put on the record.

Mr. DARLING. Thank you.

Senator KLOBUCHAR. So thank you very much.

Mr. DARLING. Thank you.

Senator FISCHER. Thank you, Senator Klobuchar.

Senator Daines.

**STATEMENT OF HON. STEVE DAINES,  
U.S. SENATOR FROM MONTANA**

Senator DAINES. Thank you, Madam Chair.

For Administrator Darling, a question. When I was a member of the House, I authored and passed an amendment to the Transportation Appropriations bill. It was going to block the efforts to increase financial responsibility requirements for motor carriers. These increased requirements would be up to a 500 percent increase and would send premiums skyrocketing despite the DOT's own data that showed that the current requirements covering 99.9 percent of the accident cost, and we were doing some research on the Fed Register.

And this policy, going back in history, was established by the Federal Highway Administration in 1980 where, and I quote, it said, "Congress' intent for reasonable protection did not include those damages incurred as a result of an extremely limited number of 'worst case' accidents."

So a question: Given that the current policy covers 99.9 percent of accident costs, why is the agency departing from this original policy?

Mr. DARLING. We're not departing, Senator, from the original intent. We have put out an advance notice of rulemaking that looks to collect data about the financial responsibility from the stakeholders. That is currently out and we're currently analyzing the comments that we're going to receive from that. I go back to the point that the minimum financial responsibility requirements were put in place in 1980. It's now 2015 and it may be an opportunity for us to take a look at it.

Senator DAINES. Well, there was a discussion about where this proposed rule may create up to a 500 percent increase for our carriers when, again, 99.9 percent of the current accident cost recovered under the existing policy. My concern is, what I see here is, the primary beneficiary of these increased liability and requirements here for our motor carriers is going to be the trial lawyers. That's who is going to benefit the most.

Mr. DARLING. Senator, thank you again, we have not made any decisions on financial responsibility. Again, I go back to we're in a data collection period. We'd like to collect the data. We need to analyze the comments that we've received from the advanced notice of proposed rulemaking. It is not a proposed notice of rulemaking it's the advanced; means that we're collecting data to determine where we go next and how we proceed next.

Senator DAINES. OK, let me move on a separate area.

Yesterday, we had Secretary Foxx. Had a good hearing with him and we were—around why there were so many Acting Administrators in major operating agencies in the Department of Transportation. And he said they're looking for the right fit and they had good leaders in place. And you've been the Acting Administrator since August 2014. It's my understanding that your term as Acting Administrator ends in just 19 days, March 23. What's the contingency plan after March 23?

Mr. DARLING. I currently serve at the will of the President, and I have 19 days left. It's my understanding that the Administration is vetting some candidates for the position. We will look to have adequate administrative support going forward after my term is over. So we will have somebody in place to run the agency.

Senator DAINES. Has the President given you any indication he wanted you to nominate, be nominated for that position or someone else? Do you have any sense? There's 19 days left to—

Mr. DARLING. Right.

Senator DAINES.—hopefully, you get some visibility there.

Mr. DARLING. Yes, there is some visibility there and I believe the Administration is looking at candidates. I only serve at the will of the President and the Administration.

Senator DAINES. Thank you.

I yield back my time.

Senator FISCHER. Thank you, Senator Daines.

With that, the hearing record will remain open for two weeks. During that time, Senators are asked to submit any questions for the record. Upon receipt, the witnesses are requested to submit their written answers to the Committee as soon as possible.

I thank the witnesses for appearing today. Thank you so much.

The hearing is closed.

[Whereupon, at 12:11 p.m., the hearing was adjourned.]



## A P P E N D I X

### RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DEB FISCHER TO SUSAN A. FLEMING

*Question.* As you pointed out in your written testimony, FMCSA stated that its CSA Safety Measurement System (SMS) provides stakeholders with valuable safety information, which can “empower motor carriers and other stakeholders . . . to make safety-based business decisions.” At the hearing you said you had concerns about the public display of data based on the limitations GAO has identified in the reliability and precision of CSA’s Safety Management System scores. Is it appropriate for FMCSA to suggest that stakeholders make safety-based business decisions by relying on publicly available SMS scores, considering GAO’s concerns about the reliability and precision of the CSA methodology?

*Answer.* Given the limitations that we identified with SMS scores in our recent work (GAO-14-114)—that SMS scores are not precise enough to measure a carrier’s relative safety performance—we believe that the SMS scores should be removed from FMCSA’s CSA website.

Publicly displaying scores that are unreliable could be worse than not displaying any scores at all since shippers and brokers, U.S. Government departments, and the public use the publicly available scores to make decisions, such as which carrier to hire to transport goods. If those scores do not accurately reflect the safety performance of a company, they could cause companies to lose business or cause consumers to hire an unsafe carrier that was not deemed high risk.

FMCSA already shields some SMS scores from public view. For example, FMCSA does not display SMS scores for carriers that do not have enough safety performance data, such as a minimum number of inspections. We found that the minimum number of inspections established by FMCSA was too low to calculate a reliable SMS score for comparing carriers’ safety performance. In addition, through a disclaimer, FMCSA acknowledges that a carrier’s publicly released SMS scores should not be used to draw conclusions about a carrier’s safety condition, which has created confusion in the industry about what the scores mean.

FMCSA needs to determine the level of precision needed for the intended purpose, including publicly displaying SMS scores. However, data used to calculate SMS scores could continue to be publicly reported to help inform the public about individual carriers’ history of inspections, violations, and crashes.

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### RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. KELLY AYOTTE TO SUSAN A. FLEMING

*Question.* In your written testimony, you explained that GAO has on-going work regarding FMCSA’s Hours of Service regulations. Could you please provide me with an update regarding GAO’s on-going work on this issue?

*Answer.* Our audit on FMCSA’s Hours of Service regulations is being conducted at the request of the House Committee on Transportation and Infrastructure, and Senator Fischer, as Chairman of the Senate Surface Transportation and Merchant Marine Infrastructure, Safety and Security Subcommittee. We expect to issue our report on that work toward the end of July 2015. We would be happy to brief Senator Ayotte and her staff after the report is published.

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### RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. CORY BOOKER TO SUSAN A. FLEMING

*Question.* The NTSB has raised concerns that in many of their crash investigations, there was insufficient intervention from FMCSA to stop the unsafe company from operating before the accident occurred. Do you share this concern? Would your recommendations address this concern?

Answer. We share the concerns raised by the NTSB. Our 2014 report (GAO-14-114) raises serious questions about the ability of CSA to identify carriers at the highest risk for crashing. FMCSA uses SMS scores to identify and prioritize carriers with safety performance problems for intervention. However, our analysis showed that FMCSA's method for prioritizing carriers is not identifying carriers that crash in the future as well as possible alternatives could. As a result, FMCSA may devote significant intervention resources to carriers that do not actually pose as great a safety risk as other carriers. Specifically, we tested an illustrative alternative to FMCSA's existing methodology and demonstrated that by focusing on carriers with more safety performance information, a much higher percentage of the carriers identified as high risk eventually crashed (67 percent), than those identified using FMCSA's existing method (39 percent). If FMCSA implemented our recommendation, it could improve its ability to identify high risk carriers that are likely to crash and prioritize its use of limited intervention resources.

Once a high risk carrier is identified by FMCSA, the carrier is subject to interventions ranging from a warning letter to a full compliance review. Many of these FMCSA interventions are new since the implementation of CSA in 2010. While these intervention strategies could help FMCSA reach more carriers, the effectiveness of these new strategies remains unclear. While we have not studied the effectiveness of these intervention strategies in detail to date, we believe future work is warranted given the importance of this issue.

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RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO  
HON. T.F. SCOTT DARLING III

*Question 1.* Minimum levels of insurance as set by the Federal Motor Carrier Safety Administration (FMCSA) are required to protect the traveling public from burdensome accident costs. The current minimum is \$750,000 for most carriers of property (with certain higher limits for those carrying hazardous materials and passengers). This amount was last changed in 1985—30 years ago.

In April 2014, FMCSA issued a report—as mandated by Congress—evaluating the current financial responsibility limits for motor carriers—especially those carrying property. The FMCSA report determined that the current minimum of \$750,000 falls well short of what is necessary, concluding that (1) costs for severe and critical injury crashes can easily exceed \$1 million; and (2) current insurance limits do not adequately cover catastrophic crashes, mainly because of increased medical costs. The report concluded overall: “current financial responsibility minimums are inadequate to fully cover the costs of some crashes in light of increased medical costs and revised value of statistical life estimates.” In other words, when carriers cause accidents, they're often ill-prepared to pick up the tab.

In November 2014, FMCSA announced an Advance Notice of Proposed Rulemaking on insurance minimums. The comment period recently closed.

What is the timeline for finalizing this rule? Does FMCSA envision a new minimum that would adequately cover the real cost of accidents? How much is the public currently overpaying for severe truck accidents?

Answer. Section 32104 of MAP-21 directed the Secretary of Transportation (DOT) to issue a report to Congress on the appropriateness of the current minimum financial responsibility requirements for motor carriers of property and passengers, and the current bond and insurance requirements for freight forwarders and brokers. The statute also requires that the Secretary report on the adequacy of the financial responsibility requirements every 4 years thereafter. FMCSA's April 2014 report fulfilled the statutory requirement for the initial report. And given the findings that certain crashes occur for which the current levels appear inadequate, the Agency tasked its Motor Carrier Safety Advisory Committee to provide recommendations on how best to address this challenge. The Agency also sought public comment through publication of an Advance Notice of Proposed Rulemaking (ANPRM), a rulemaking notice in which a series of questions were presented without any proposal for changes to the minimum levels of insurance. The Agency is currently reviewing the public comments submitted in response to the ANPRM and no decision has been made concerning the next regulatory action.

A previous FMCSA-sponsored study on this issue identified the issue of cost transference as it relates to severe truck crashes but did not provide an estimate of the aggregate amount of final judgments against motor carriers that exceeded the limits of the insurance coverage for those carriers.

*Question 2.* In January of this year, the Department of Transportation announced plans to allow Mexican motor carriers to apply for certification to begin cross-border long-haul services throughout the United States. This announcement came after a

three-year pilot project that produced evidence the Department of Transportation contends is proof that Mexican trucking operations can meet U.S. standards.

I'm concerned the pilot project was insufficient. Likewise, many labor leaders, safety advocates and industry officials question the pilot project and have voiced grave concerns over the long-term proposal, arguing that the pilot project wasn't extensive enough and any results are inconclusive at best.

What gives you confidence that Mexican truck operators will meet U.S. safety standards? Have you reviewed the concerns of many labor leaders, safety advocates and others that the pilot project should go on for a longer time period than three years and include more than just 13 carriers, which seem like an extremely insufficient sample size? What actions are you taking to address their concerns?

Answer. FMCSA is confident that Mexican motor carriers can meet U.S. safety standards because the extensive analysis conducted during the pilot program of both pilot program participants and other Mexico-domiciled/Mexican-owned companies operating in long-haul transportation. As explained in FMCSA's April 2011 Federal Register notice, the Agency's analysis plan included the assessment of the safety performance of both the Pilot Program carriers and a large number of Mexican-owned or -domiciled Enterprise and Certificate motor carriers conducting long-haul operations beyond the commercial zones of the United States during the Pilot Program. The analysis of the Certificate and Enterprise carriers was conducted, in keeping with the Agency's analysis plan, to provide complementary safety information as they operate in substantially the same way as the Pilot Program carriers under a different oversight regimen. During the Pilot Program period, 351 new Enterprise motor carriers received authority.

Evaluating driver out-of-service (OOS) rates, vehicle OOS rates, brake violations, hour of service (HOS) violations, driver fitness violations, and moving violations, along with safety ratings and acute and critical violations—the primary criteria used to measure the safety of motor carriers operating in the United States—the analysis found that Mexico-domiciled motor carriers operating beyond the commercial zones had safety records that were equal to or better than the national average for U.S. and Canadian motor carriers operating in the United States.

Based on the data available to FMCSA and the analysis in the Report to Congress, in conjunction with data developed for comparison purposes on other Mexican motor carriers with long-haul operations, FMCSA concluded that the Pilot Program successfully demonstrated that Mexican motor carriers can and do operate throughout the United States at a safety level equivalent to U.S. and Canada-domiciled motor carriers.

The Agency addressed the concerns of all interested parties in developing the pilot program. As a result, the participating carriers operated safely and in compliance with Federal regulations. However, FMCSA's pilot program regulations at 49 CFR 381.400 do not allow pilot programs to go beyond 3 years so that was not an option for the program.

FMCSA is confident that the application and oversight procedures in place will continue to ensure the safety of these motor carriers. Applicants for long-haul operating authority still undergo Agency safety and security vetting. In addition, the applicant must pass a Pre-Authorization Safety Audit (PASA) before being issued operating authority. During the PASA, FMCSA confirms that the motor carrier has systems in place for managing hours-of-service and agreements in place for drug and alcohol testing. In addition, the FMCSA auditor reviews driver qualification files and confirms that all of the minimum requirements of the PASA are met.

The operating authority applications are noticed in the FMCSA Register like those of U.S. and Canadian motor carriers. Before authority is granted, applicants must file evidence of financial responsibility and process agents, like other motor carriers.

Once a Mexican motor carrier has long-haul authority it must also:

- Mark all of its vehicles with an "X" at the end of the DOT number to show it is a long-haul motor carrier.
- Undergo an in-depth Level 1 safety inspection every 90 days for its 18 month provisional authority, and the first 3 years of standard authority (4.5 years total).
- Display a current Commercial Vehicle Safety Alliance (CVSA) decal issued by a certified inspector to prove the vehicle has passed an inspection. Mexican carriers with long-haul authority must display a decal at all times for at least three years after receiving operating authority. Any commercial vehicles that are not in compliance will not be allowed to operate until their safety has been verified through another inspection.

- Undergo regular inspections by Customs and Border Protection, as well as FMCSA border inspectors, at U.S. ports of entry.
- Comply with all Federal Motor Carrier Safety Regulations
- Maintain evidence of financial responsibility.
- Undergo a compliance review in the first 18 months that confirms that the required safety management systems are in place.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CORY BOOKER TO  
HON. T.F. SCOTT DARLING III

*Question 1.* As you know, there has been a considerable amount of discussion in recent months about the Department's hours-of-service rule and the appropriations bill that stopped enforcement of two provisions. Administrator Darling, is it true that drivers will potentially be able to work more than 80 hours per week?

Answer. Yes. With the Congressional suspension of certain provisions of the "restart rule," it is possible for a commercial driver to work an average of more than 80 hours per week.

*Question 2.* How do the changes in the appropriations bill impact driver fatigue? What have your studies found about drivers that don't get two consecutive nights of work off?

Answer. Congressional action is contrary to what the fatigue research and FMCSA's expert panel on fatigue has suggested is needed for drivers to recover from a long work week. Driver fatigue is exacerbated by irregular and/or night shifts, which reduce sleep length and quality. The research conducted by Jovanis and Kaneko (1990), Linklater (1980), and Williamson *et al.*, (1994) all support the idea that fatigue develops over the week and that recovery time is required. FMCSA commissioned a panel of fatigue experts to provide recommendations to improve the HOS rule to reduce driver fatigue. The expert panel recommended that recovery time include at least two uninterrupted periods between midnight and 6:00 a.m., at least once in every 7 days (Belenky, *et al.*, 1998; Rosekind, Neri, and Dinges, 1997; Caldwell, Caldwell, and Colon, 1998; Johnson *et al.*, 1998). A number of studies found that more than 34 hours were needed for drivers to recover fully from a long work week. Four studies that examined recovery all concluded that 36 hours was not enough (Lille, 1967, Hildebrandt *et al.*, 1975, Mallette, 1994 and Wylie *et al.*, 1997). Three of these studies involved rotating shift or night shift workers, and not day shift workers; one study included both day and night shift workers. Wylie *et al.*, 1997 (extension of the U.S./Canada study) suggested that, based on sleep structure and length, as well as lane tracking performance, 36 hours are not sufficient for recovery, particularly for night drivers. FMCSA also conducted two laboratory studies of the 34-hour restart provision.

- Phase 1—Findings: The 34-hour restart was effective at mitigating sleep loss and consequent performance impairment for daytime drivers, but not effective for nighttime drivers. FMCSA tested a new restart provision primarily for night drivers that required a minimum of 34 hours off duty but must contain two night rest periods 1:00 to 5:00 a.m.
- Phase 2—Findings: For nighttime drivers, the 2-night provision works better than one night to mitigate driver fatigue.

In MAP 21, Congress requested a field study on the efficacy of the restart. The results of the field study were consistent with previous lab studies, the data were representative of drivers affected by maximum driving time requirements, and the analysis was statistically valid. The study showed that having at least two nighttime periods from 1:00 a.m. until 5:00 a.m. in the restart break mitigates fatigue for nighttime drivers, both objectively and subjectively, by increasing the total amount of sleep obtained during that restart break.

*Question 3.* Some have suggested that fatigue doesn't play a big role in crashes. Why is DOT concerned about the impact of fatigue on drivers?

Answer. It is a well-known fact that fatigue is underreported in the national databases (Banerjee *et al.*, 2009; NHTSA website, AAA Foundation; Brian Tefft, 2014). When a police officer investigates a crash, a surviving CMV driver is not likely to admit being fatigued. Under-reporting of fatigued driving is most likely due to lack of firm evidence since the investigation is done after the crash; the lack of awareness among drivers of the role that fatigue may have played in the crash; driver reluctance to admit being tired or falling asleep; and, in some cases, the death of the driver. Therefore, FMCSA has to rely on research studies that specifically investigated driver fatigue as a factor in truck crashes. The Large Truck Crash Causa-

tion Study (LTCCS) provided data from a nationally representative sample of large truck fatal and injury crashes. Data were collected on up to 1,000 elements in each crash. The total sample involved 967 crashes, which included 1,127 large trucks, 959 non-truck motor vehicles, 251 fatalities, and 1,408 injuries. Fatigue was listed as a contributing factor in 13 percent of the crashes in the LTCCS. Research conducted by the National Transportation Safety Board (NTSB) has estimated that fatigue is associated in 31 percent of crashes (though that figure is for truck crashes fatal to the driver). The NTSB also observed that “truck driver fatigue may be a contributing factor in as many as 30 to 40 percent of all heavy truck accidents.”

FMCSA has always been conservative in estimates of the role of fatigue in crashes. If the estimates from the LTCCS are correct, that means that fatigue was a factor in more than 515 fatalities and 12,350 injuries on the Nation’s highways in 2013.

*Question 4.* Earlier this year, the Committee heard testimony from a trucking company, who said most of its drivers never come close to hitting the maximum weekly hours of service limit. Is that true of most companies? If so, why are those companies so concerned about this rule that doesn’t impact them?

Answer. Safety is FMCSA’s top priority and the December 2011 hours-of-service final rule is intended to prevent motor carriers from requiring or allowing truck drivers to remain behind the wheel after working more than 70 hours, week after week.

Yes, it is true that many drivers do not work the maximum number of hours possible under the HOS rules. The hours-of-service regulations are directed toward those who do. Drivers who do not work the maximum hours should feel little impact from the revised provisions. Some associations and carriers have reported that there are “unintended consequences” from the new provisions; however, FMCSA has no documentation of the extent of these “consequences.”

The Agency’s senior leadership team met with the American Trucking Associations on May 8, 2014. It is not clear from the examples presented that the 34-hour restart restrictions would have an adverse impact on schedules that comply with the 60- and 70-hour rules (*i.e.*, the drivers did not reach a point where a restart was necessary in order to maintain the schedule). For example, one of the carriers presented a schedule showing 11-hour shifts, Monday through Friday, with an occasional 11-hour shift on Saturday. This schedule could never be run under the 60-hour rule, with or without the restart option, because the driver would hit the 60-hour on-duty limit during the shift on Saturday. And under the 70-hour rule (if the motor carrier operates CMVs every day of the week) there is no need to use the restart—the drivers could work six 11-hour shifts (Monday through Saturday) without running out of time. They could then begin a new work week Monday morning, at a time of the carrier’s choosing.

It is thus unclear why so many companies appear to be concerned, or indeed, if recent assertions or widespread concern are accurate. It is worth noting that very few groups of carriers have taken advantage of the opportunity to formally request an exemption from any of the hours of service regulations (49 CFR Part 381).

*Question 5.* Since Congress stopped enforcement of some provisions of the rule, are there other issues we should consider revisiting as well—like limiting the number of hours per day drivers can drive or examining the need for any restart?

Answer. The hours-of-service (HOS) final rule (76 FR 81134), effective February 27, 2012, with delayed compliance on some provisions until July 1, 2013, was an exhaustive effort to review all concerns about the HOS rules. The Agency obtained input from drivers, the industry and the public, through written comments and public listening sessions. The rulemaking considered hundreds of research studies and was based on many years of HOS research and experience at FMCSA. The U.S. Court of Appeals for the District of Columbia Circuit upheld the final rule, with a minor exception. *American Trucking Associations v. Federal Motor Carrier Safety Administration*, 724 F.3d 243 (D.C. Cir. 2013). The Court opined that “our decision today brings to an end much of the permanent warfare surrounding the HOS rules.” Although the Agency used the most comprehensive data available in the 2011 rule-making, FMCSA is committed to continuing research into fatigue and the HOS rules.

*Question 6.* Are there other issues—like driver pay and company pressure—that are pushing drivers to work longer hours? Should we address those issues in conjunction with hours of service?

Answer. Drivers frequently report that low pay is a reason they need to work as many hours as possible. One problem for them is that CMV drivers, among others, are exempt from the overtime provisions of the Fair Labor Standards Act. As a result, they are often unnecessarily delayed by shippers and receivers, who have lim-

ited incentives to resolve the issue. President Obama's GROW AMERICA Act would require that drivers be paid during these delays and give the FMCSA new authority over contractors who exercise direct control over a motor carrier's operations. Under the authority provided in MAP-21, FMCSA is preparing new regulations to address the coercion of drivers to violate the Federal Motor Carrier Safety Regulations.

*Question 7.* A fatal, multi-vehicle truck accident can cost over \$20 million to compensate families, care for the injured, and pay for the destruction of our Nation's highway infrastructure. However, the requirement to carry at least \$750,000 in minimum insurance has not been increased in 30 years, even to account for inflation, which has led to taxpayers having to foot the bill in the aftermath of major truck accidents.

Administrator Darling, FMCSA issued a report recognizing the current minimum insurance level as inadequate. What steps can Congress take in transportation reauthorization to reduce the unfair, economic burden that truck crashes are placing on the American people?

Answer. Section 32104 of MAP-21 directed the Secretary of Transportation (DOT) to issue a report to Congress on the appropriateness of the current minimum financial responsibility requirements for motor carriers of property and passengers, and the current bond and insurance requirements for freight forwarders and brokers. The statute also requires that the Secretary report on the adequacy of the financial responsibility limits every four years thereafter. FMCSA's April 2014 report fulfilled the statutory requirement for the initial report. And given the findings that certain crashes occur for which the current levels appear inadequate, the Agency tasked its Motor Carrier Safety Advisory Committee to provide recommendations on how best to address this challenge. The Agency also sought public comment through publication of an Advance Notice of Proposed Rulemaking (ANPRM), a rulemaking notice in which a series of questions were presented without any proposal for changes to the minimum levels of insurance. The Agency is currently reviewing the public comments submitted in response to the ANPRM. No decision has been made concerning future regulatory action.

With regard to the question about the burden on the economic consequences on the general public for truck-related crashes, a previous FMCSA-sponsored study on this issue identified the issue of cost transference as it relates to severe truck crashes. However, the study did not provide an estimate of the aggregate amount of final judgments against motor carriers that exceeded the limits of the insurance coverage for those carriers.

*Question 8.* Why is it important that the Administration reviews minimum insurance levels?

Answer. Section 32104 of MAP-21 directed the Secretary of Transportation (DOT) to issue a report to Congress on the appropriateness of the current minimum financial responsibility requirements for motor carriers of property and passengers and the current bond and insurance requirements for freight forwarders and brokers. Additionally, the statute requires that the Secretary report on the adequacy of the financial responsibility limits every four years thereafter. FMCSA's April 2014 report fulfilled the statutory requirement for the initial report. Given the findings that certain crashes occur for which the current levels appear inadequate, the Agency tasked its Motor Carrier Safety Advisory Committee to provide recommendations on how best to address this challenge.

FMCSA has made no decision concerning future regulatory action on motor carrier financial responsibility requirements. On November 28, 2014, we issued an Advance Notice of Proposed Rulemaking (ANPRM) pertaining to financial responsibility. In that ANPRM, we sought information through a series of questions pertaining to a potential increase in the financial responsibility limits as well as other issues relating to personal injury and bodily injury damages that exceed the levels of minimum financial responsibility. We did not present any proposal for changes to the minimum insurance levels. Once the Agency has fully analyzed the information that we received through the ANPRM (more than 2,100 comments were received), we will decide on next steps and will make that information public.

While Congress did not direct the Agency to initiate a rulemaking concerning financial responsibility, the findings from the statutorily mandated study obligated the Agency to seek public engagement in the process for determining whether FMCSA should propose changes to the requirements.

*Question 9.* In the last surface transportation reauthorization, Congress required that the final rule mandating electronic logging devices on trucks was to be issued by October 2013, nearly a year and a half ago. Why is this important safety rule so far behind schedule? Is this rule being executed as a high priority?

Answer. Finalizing the Electronic Logging Device rule is a top priority for me and the Department of Transportation. By leveraging innovative technology with ELDs, we have the opportunity to save lives and boost efficiency for both motor carriers and safety inspectors. The rule will increase compliance with the hours-of-service rule (HOS) and decrease the risk of fatigue-related crashes. The proposed rule-making will also significantly reduce the paperwork burden associated with hours-of-service recordkeeping for interstate truck and bus drivers.

FMCSA published a supplemental notice of proposed rulemaking (SNPRM) in the *Federal Register* on March 28, 2014, followed by a 60-day comment period which was extended on May 16 for an additional 30 days. We received more than 1,750 comments which we are currently reviewing. Given the scope of this rulemaking and the related studies the Agency undertook, we were not able to meet the statutory timeframes. However, we will continue to work hard towards a September 2015 publication of a final rule. The Agency has already started planning for the rule's implementation.

*Question 10.* FMCSA has quite a number of languishing and overdue rulemakings that have been required by Congress in statute. Could you please submit for the record a detailed list of current congressional requirements, the agency's current timeline for completion of these rulemakings, and detailed explanations as to why congressional deadlines have not been met?

Answer. MAP-21 contained more than 40 statutory provisions that either directly required a rulemaking action or could require a rulemaking action depending on a study or other preliminary work. To date, FMCSA has completed rulemaking actions on 23 of those requirements. The attached table provides updated information on the status of the outstanding actions.

FMCSA Pending Rulemakings—Revised 4/7/15

RIN	Title	Stage	Statute	Publication Date	Status/Comments
AB20	ELD & HOS Supporting Docs	Final Rule	Court Decision, MAP-21 32301	September 2015	SNPRM published 3/28/14, comment period ended 6/26/14 (1761 comments in the docket on the SNPRM). Final Rule in Agency review.
AB11	Safety Fitness Determination	NPRM	None; NTSB rec H-99-06	July 2015	NPRM in Departmental review.
AB57	Coercion	Final Rule	MAP-21, 32911	September 2015	NPRM published 5/13/14, comment period ended 8/11/14 (90 comments). Final Rule in Agency review,
AB66	Entry Level Driver Training	NPRM	MAP-21; 32304	October 2015	Negotiated Rulemaking. Committee meetings began 2/26 and are scheduled to occur approximately every two weeks through May.
AB44	Bus Leasing Requirements	Final Rule	None; NTSB rec H-09-33 & H-09-36	September 2015	NPRM published 9/20/13, comment period ended 11/19/13 (12 comments). Final Rule in Agency review.
AB40	National Registry 2	Final Rule	MAP-21, 32302	April 2015	Final Rule published 4/23/15.
AB18	Drug & Alcohol Clearinghouse	Final Rule	MAP-21, 32402; NTSB rec H-01-25	January 2016	NPRM published 2/20/14, comment period ended 5/21/14. (161 comments). Final Rule being developed.
AB56	URS 2	NPRM	MAP-21, 32106	April 2016	NPRM being developed.
AB63	Speed Limiters	NPRM	None	June 2015	Joint rule with NHTSA. NPRM in Departmental review.
AA95	Qualifications of Drivers; Diabetes	NPRM	None; MRB Recommendations	April 2015	NPRM published 5/4/15. Comment period ends on 7/6/15.

## FMCSA Pending Rulemakings—Revised 4/7/15—Continued

RIN	Title	Stage	Statute	Publication Date	Status/Comments
AB61	Tank Vehicle Definition	Final Rule	None; Petitions	May 2015	NPRM published 9/26/13, comment period ended 11/25/13 (17 comments). Final Rule in Agency Review.
AB74	Financial Responsibility	ANPRM	None	TBD	The ANPRM published 11/28/14, comment period ended 2/26/15. (2100 comments), currently analyzing comments.
AB67	FMVSS	NPRM	None	April 2015	NPRM in Agency review.
AB75	Civil Penalties Inflation Adjustment	Final Rule	None	March 2015	Final Rule published 4/3/15.
AB68	CDL Requirements of MAP-21 and the Military CDL Act of 2012	NPRM	MAP-21	February 2016	NPRM being developed.
AB47	Electronic Signatures (RRR)	Final Rule	None; RRR		NPRM published 4/28/14, comment period ended 6/27/14 (15 comments). Final Rule being developed.
AB17	New Entrant Testing	ANPRM	MAP-21		ANPRM published 8/29/09; 3 listening sessions and round-table held in 2014

Additionally, the Committee requested information on two rules that are listed in the March 2015 Department of Transportation (DOT) report on significant rulemakings identified as delayed due to “other, higher priorities.” The first is the Certification of Safety Auditors, Safety Investigators, and Safety Inspectors rulemaking. As there has been an Interim Final Rule (IFR) in place since January 2004, and the Agency continues to work effectively with the Commercial Vehicle Safety Alliance concerning training and certification standards for individuals conducting roadside inspections, FMCSA has not established a schedule to complete this Final Rule. Although a Final Rule is required to close out the matter, completion of the rulemaking is not a priority at this time given the FMCSA’s focus on other rulemakings that offer greater safety benefits.

The second rulemaking is the Limitations on the Issuance of Commercial Driver Licenses with a Hazardous Materials Endorsement rulemaking. Similarly, FMCSA has had an IFR in place since April 2005 which conforms to the IFR that the Transportation Safety Administration (TSA) published simultaneously. Because there are no transportation security gaps left unfilled by FMCSA’s IFR, the Agency has not made publication of a final rule a priority at this time as we expect no additional safety benefits from finalizing the IFR.

In establishing its rulemaking priorities, FMCSA balances many competing factors such as safety benefits, Congressional mandates, presidential initiatives, such as Executive Order 13563, and petitions from our stakeholders. Our top rulemaking priorities for calendar year 2015 are to publish the Final Rule on Electronic Logging Devices and the Notices of Proposed Rulemaking on Safety Fitness Determination and Entry-Level Driver Training. Additionally, we anticipate completing the Final Rules on Coercion and the Drug and Alcohol Clearinghouse, as well as making substantial progress on drafting the Notice of Proposed Rulemaking for the Unified Registration System (which addresses certain MAP-21 requirements). Priority rulemakings for 2015 will address seven of the remaining MAP-21 rulemaking requirements.

*Question 11.* The Department has a system—known as Compliance, Safety and Accountability or CSA—to help improve truck safety by tracking data and targeting companies for intervention. Some have raised concerns about the program and have suggested that data—like crashes that aren’t the fault of the truck driver—shouldn’t be used in the program. Have you taken any corrective actions to address criticisms of CSA?

Answer. Since implementation in 2010, the Safety Measurement System (SMS) has been revised several times to enhance the system as the Agency gained experience with it and to address concerns of stakeholders. I want to stress that these

changes are enhancements to an already robust safety tool. Most recently, on July 24, 2014, FMCSA announced enhancements to the display of information on the public SMS website and responded to comments received in response to FMCSA's *Federal Register* Notice, "Proposed Enhancements to the Motor Carrier Safety Measurement System (SMS) Public Website" published on November 5, 2013. The enhancements were a continuation of the Agency's efforts to provide law enforcement, the motor carrier industry, and other safety stakeholders with more comprehensive, informative, and regularly updated safety performance data. This set of enhancements included modifications to the public SMS display, including four additional changes not originally proposed that resulted from comments received. These enhancements were implemented in August 2014.

In addition, FMCSA will soon publish another notice in the *Federal Register* and seek comments on an additional set of proposed enhancements to the SMS public website. Consistent with its prior announcements, the Agency is proposing changes to the SMS that are the direct result of feedback from stakeholders and the Agency's ongoing continuous improvement efforts. In addition, these changes are supported by not only the Agency's analysis, but research and analysis conducted by industry and other independent groups. The Agency is considering several changes through this notice and will be asking for comment on these issues, and other possible areas for consideration. The proposed set of enhancements would include changing SMS intervention thresholds to better reflect the Behavior Analysis Safety Improvement Category's (BASIC) correlation to crash risk, other changes to the Hazardous Materials Compliance BASIC, moving violations for operating while out-of-service to the Unsafe Driving BASIC, and changes to provide credit for companies who have very high vehicle utilization of their vehicles.

In compliance with Congressional direction, we are conducting further study of the data sufficiency requirements.

*Question 12.* Why does the Department use data about crashes, even if they weren't the fault of the truck driver? Shouldn't drivers be able to challenge questions violation and crash reports?

Answer. Through analysis that has been re-verified over time, FMCSA has confirmed motor carriers that have been involved in a high number of crashes are more likely than other carriers to be involved in future crashes regardless of the role of the carrier in the crash.

Although FMCSA uses all crashes in the SMS to identify motor carriers for intervention, the Agency does not display the SMS Crash Indicator BASIC score on the public website, recognizing the concerns of the industry relating to the carrier's role in the crash. In addition, the crash information on the SMS website clearly advises that "Crashes listed represent a motor carrier's involvement in reportable crashes, regardless of the carrier's or driver's role in the crash."

In addition, FMCSA fully considers crash preventability before issuing a safety rating to ensure that a carrier does not receive an adverse safety fitness rating because of a crash that was considered to be non-preventable. Using all crashes for prioritization, but only preventable crashes for safety fitness determinations, balances the concerns of the industry with FMCSA's mission to protect the motoring public by using the best performance data currently available.

FMCSA has stopped short of making decisions about preventability for several reasons. First, crashes as a whole are extremely complex events, and trying to make a determination after the fact is difficult, costly and time consuming. In addition, the Agency has concerns about making judgments that can have a significant impact on private liability issues. Finally, the reliability and completeness of the data to make these judgments are open to question.

The results of the "Crash Weighting Analysis" did call into question the usefulness of making decisions about a carrier's role in the crash when the reports were compared with other data sources. Understanding the concerns about these issues, including how the Agency would manage these issues for over 100,000 reportable crashes annually, the Agency sought public comments (*Federal Register*, February 19, 2015) on this issue and will use this input as it identifies appropriate next steps regarding the Crash Indicator BASIC in the SMS.

Carriers and drivers may submit documentation regarding violations and crashes through FMCSA's DataQs system. The motor carrier's records are adjusted for adjudicated citations or erroneous violations.

*Question 13.* A few decades ago, a unionized truck driver made today's equivalent of \$44.83 per hour. Today a truck driver is lucky to make half of that. One study by Rutgers University found Independent contractors in New Jersey reported earning less than \$10 per hour while employee drivers earned around \$12 per hour.

Truck accidents are on the rise while the wages of driver are in decline. We are paying the folks responsible for moving the goods the country depends on extremely low salaries. These men and women must now push themselves to the brink of human exhaustion just to feed their families or save up to send their children to college. I have to wonder how that impacts safety. Administrator Darling, do you share similar concerns? How does the Administration's surface transportation proposal address this issue?

Answer. While FMCSA cannot comment on the specific salary levels referenced in your inquiry, the Agency shares your concern about the link between driver earnings and safety. This concern is particularly acute for long-haul drivers who may work extended hours that increase the risk of fatigue. Drivers often experience long periods of detention time at shipper or receiver facilities—time for which they feel they are not compensated, thus, resulting in pressure to drive beyond the hours of service limitations as a matter of economic necessity. This is especially serious for drivers compensated by the mile or trip but not by the hour.

Under GROW AMERICA, the Secretary of Transportation would be given the authority to adopt regulations that would require motor carriers to compensate these drivers, whether they are employees and independent contractors, for on-duty, not-driving periods at an hourly rate not less than the Federal minimum wage (this would not affect drivers covered by a collective bargaining agreement that governs compensation for these periods). While the Agency recognizes this issue as a problem, it is not easily quantified. Thus, the Agency is in the initial stages of a study that evaluates driver compensation methods in connection with safety. The Agency hopes to complete this study this year.

*Question 14.* Between October 2011 and October 2014, FMCSA conducted the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program to evaluate the ability of Mexico domiciled motor carriers to operate safely in the U.S. The pilot allowed certain Mexico domiciled motor carriers to operate throughout the U.S. for up to 3 years. U.S. domiciled motor carriers were granted reciprocal rights to operate in Mexico for the same period.

In January, DOT announced that it would move forward with opening the border to trucks domiciled in Mexico despite a report by the DOT Inspector General (IG) suggesting that the pilot program had not been able to generate statistically significant data, and therefore the future safety performance of Mexico domiciled carriers could not be determined.

Administrator Darling, do you believe the amount of data derived from the 13 carriers in the pilot program was sufficient to make a safety determination for all Mexican domiciled long-haul carriers?

Answer. As explained in FMCSA's April 2011 *Federal Register* notice, the Agency's analysis plan included the assessment of the safety performance of the Pilot Program as well as the large number of Mexican-owned or -domiciled Enterprise and Certificate motor carriers conducting long-haul operations beyond the commercial zones of the United States during the Pilot Program. The analysis of the Certificate and Enterprise carriers was conducted, in keeping with the Agency's analysis plan, to provide complementary safety information as they operate substantially the same as the Pilot Program carriers under a different oversight regimen. It is noted that during the Pilot Program period, 351 new enterprise motor carriers received authority.

Evaluating driver out-of-service (OOS) rates, vehicle OOS rates, brake violations, hour of service (HOS) violations, driver fitness violations, and moving violations, along with safety ratings and acute and critical violations, the primary criteria used to measure the safety of motor carriers operating in the United States, the analysis finds evidence that Mexico-domiciled motor carriers operating beyond the commercial zones had safety records that were equal to or better than the national average for U.S. and Canadian motor carriers operating in the United States.

Based on the data available to FMCSA and the analysis in the Report to Congress, in conjunction with data developed for comparison purposes of other Mexican motor carriers with long-haul operations, FMCSA concludes that the Pilot Program successfully demonstrated that Mexican motor carriers can and do operate throughout the United States at a safety level equivalent to U.S. and Canada-domiciled motor carriers and consistent with the high safety standards that FMCSA imposes on all motor carriers authorized to operate in the United States.

*Question 15.* What is your response to the concerns raised by the DOT IG in their report on the Cross-Border Pilot Program?

Answer. The OIG was required to complete an audit of the Pilot Program within 60 days of its conclusion. This OIG audit report was submitted to the Department and U.S. Congress on December 10, 2014, and included the Agency's response. The

report documented that FMCSA implemented adequate monitoring and enforcement. The OIG report noted that although security concerns existed for FMCSA personnel, the agency substantially complied with the Section 350 requirements.

The OIG also noted that FMCSA established a sufficient mechanism to determine the Pilot Program participants' impact on safety. The OIG confirmed FMCSA's findings and conclusions regarding Pilot Program carriers' safety performance.

The OIG report indicated that the Pilot Program lacked an adequate and representative sample to make confident projections regarding long-haul operations by Mexico-domiciled motor carriers. Based on its statistical analysis, which was statutorily limited to the Pilot Program carriers, the OIG concluded that the participation of 15 carriers, in relation to the 37 applicants, was not adequate to confidently project safety performance for an unknown future population. FMCSA's April 13, 2011, Pilot Program proposal estimated that 46 participant carriers would be needed to achieve the target of 4,100 inspections within 3 years based upon long-haul border crossing assumptions. At the time, FMCSA also stated that if participating carriers performed more crossings per week or enrolled more vehicles, then fewer carriers would be needed for the program. In fact, the 15 participating carriers did surpass FMCSA's initial target of 4,100 inspections.

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RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO  
HON. CHRISTOPHER A. HART

*Question 1.* Do you believe increasing crude-by-rail movements constitutes an imminent hazard to American public safety?

Answer. As the volume of crude-by-rail shipments has grown in recent years, several serious and often fatal accidents reflect substantial shortcomings in railroad operational integrity, tank car design, and emergency response capability that create an increased risk to the public. The Association of American Railroads (AAR) states that crude oil shipments have increased on Class I railroads from 4,700 carloads in 2006 to about 400,000 shipments in 2013. NTSB investigations conclude that the DOT-111 tank cars and the more robust CPC-1232 cars that are being used to move flammable liquids are not up to the task. Crude oil is increasingly delivered to the refinery by rail and is shipped via very long "unit trains" that can consist of more than a hundred tank cars, be more than a mile long, and travel in or near populated areas, environmentally sensitive areas, and highways. Growth in the North American energy landscape increases the likelihood for fires, explosions, and releases of hundreds of thousands of gallons of flammable liquids.

*Question 2.* I'm sure you have looked at the draft rulemaking on Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, which is now under final review at the Office of Management and Budget. Do you believe tank cars should have thicker shells beyond the current standard?

Answer. Yes. The NTSB has identified vulnerabilities in the DOT-111 tank car design with respect to tank heads, shells, and fittings that create unnecessary and demonstrated risks that can result in the release of a tank car's product in an accident. Flammable crude oil frequently ignites and causes catastrophic damage.

Federal requirements have not kept pace with technology, evolving demands placed on the railroad industry, and knowledge about hazardous materials and accidents. While the current AAR industry standards adopted for DOT-111 tank cars ordered after October 1, 2011, (CPC-1232) that are used to transport packing group I and II crude oil impose a level of protection greater than corresponding Federal requirements, recent accidents have demonstrated that these modifications do not offer adequate safety improvements.

The NTSB continues to assert that tank cars of any successor specification transporting hazardous materials should be more puncture-resistant and include thermal protection systems. The existing tank car fleet, including DOT-111 and CPC-1232 tank cars, should be retrofitted to a more robust performance standard. This can be accomplished through the incorporation of additional protective features such as full head shields, jackets, thermal insulation, top fittings protection, and thicker head and shell materials. Because the average service life of a tank car may run 20 to 50 years, it is imperative that industry, the FRA, and PHMSA take action now to address hazards that otherwise would exist for another half-generation or longer.

*Question 3.* Do you believe that braking systems must be improved beyond the current standard?

Answer. Yes. The NTSB supports PHMSA's proposal for improved stopping performance using braking systems that could reduce the likelihood of a tank car being punctured during a derailment. This proposal was included in its August 1, 2014,

notice of proposed rulemaking (NPRM), Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains outlining new operational requirements and improved tank car standards for certain trains transporting large volumes of hazard Class 3 flammable liquids. The NPRM would require that all high-hazard flammable trains (HHFTs) be equipped with improved braking systems (either distributed power units, two-way end-of-train devices, or electronically controlled pneumatic brakes).

The NTSB also believes that lower speeds combined with these improved braking systems would reduce the risk of tank car punctures as well. Because lower operating speeds reduce the kinetic energy in a train consist, they could, if coupled with improved stopping ability, minimize the dynamic behavior and number of tank cars involved in an accident.

*Question 4.* Is it your opinion that an unjacketed CPC-1232 tank car is not a significant and substantial safety improvement over the legacy DOT-111 (jacketed or unjacketed)?

Answer. The NTSB has investigated several accidents recently, such as the Lynchburg derailment and fire a year ago involving the newer cars, in which the train was going less than 25 mph and still resulted in the breach of a 1232 car. The NTSB has concerns and is still analyzing evidence from these accidents. While the current AAR industry standards adopted for DOT-111 tank cars ordered after October 1, 2011, that are used to transport packing group I and II crude oil impose a level of protection greater than corresponding Federal requirements, these accidents have demonstrated that these modifications do not provide significant safety improvements. While the NTSB does not specify the exact thickness in its recommendations, we know that the robustness must be improved, along with thermal protection, to avoid catastrophic fires and explosions.

These accidents demonstrate that tank cars provided with increased puncture resistance, such as the CPC-1232 tank car, when exposed to pool fire conditions, are still rupturing and releasing product at an unacceptable rate.

Transport Canada's proposed replacement and retrofit implementation schedule provides until 2025 for all tank cars to comply with new performance standards, and the NTSB believes that a more comprehensive and aggressive implementation schedule, with transparent reporting of intermediate progress milestones, is necessary to ensure completion of tank car improvements within a reasonable time period.

*Question 5.* Based on available data, do you believe that legacy DOT-111 (jacketed or unjacketed) and unjacketed CPC-1232 cars can even be retrofitted to a standard that will be safe enough to allow for continued use?

Answer. Yes. The NTSB believes that these tank cars can be retrofitted for enhanced safety. For example, a unit train of 100 fully loaded 30,000-gallon tank cars may transport up to 3 million gallons of hazardous materials per train through populated and environmentally sensitive areas. The NTSB welcomes requirements for existing DOT-111 tank cars to be retrofitted with head shields and thermal protection, among other improvements. The safety benefits of new specification tank cars will not be realized while the existing tank car fleet remains in hazardous materials unit train service unless the existing cars are retrofitted.

*Question 6.* The current rule under consideration at OMB does not address the volatility of the crude oil that is being transported. Is there evidence to suggest that the volatility of the crude oil in recent crude-by-rail accidents made the accidents worse, in terms of size and duration of resulting fires and explosions?

Answer. While some of the crude oil being moved on the Nation's railroad system is of a higher quality and thus is more volatile than some other Class 3 flammable liquids, recent accidents have not demonstrated that reducing the volatility is a solution. In fact, such an action results in other significant challenges, and may transfer—not eliminate—the risk posed by these materials.

While Bakken formation crude may have more volatile properties, the NTSB's investigations conclude that differences in crude's volatility are not the key safety issue.

*Question 7.* Is there reason to believe that reducing the volatility of the crude oil prior to shipment could reduce the severity of accidents?

Answer. Reiterating the previous response, differences in the crude oil's volatility is not the key safety issue. While the more volatile materials will result in a larger fire ball when a tank car thermal fails, this does not add significantly to the footprint of the damage. The pool fire (burning flammable liquid on the ground) causes the majority of the damage. The huge quantities of flammable crude being transported and the impact energy involved in an accident that breaches unsafe tank cars are the main causes for ignition and catastrophic fires.

*Question 8.* North Dakota will soon enact the first volatility standard for crude shipped by rail. The new standard is understood to be easily met with existing infrastructure in North Dakota. Should there be a nationwide, federally-enforced standard for volatility of crude shipped by rail?

Answer. The NTSB recommends that any Federal standards focus on enhanced tank head and shell puncture-resistance systems, and top-fittings protection, rather than volatility. The huge quantities of flammable crude being transported by unit trains and the impact energy involved in an accident that breaches unsafe tank cars are the main safety issues warranting Federal enforcement.

*Question 9.* Should such a Federal standard be more protective than the North Dakota standard?

Answer. See above.

*Question 10.* Rail tank car safety was on the NTSB's 2015 "Most Wanted List" of safety improvements. In light of what has happened recently in West Virginia; Ontario, Canada; and Illinois, do you view October 2017 as an acceptable time-frame—from a safety perspective—to stop the use of the worst tank cars including DOT-111s for carrying crude oil?

Answer. For more than 20 years the NTSB has identified a range of vulnerabilities in the DOT-111 tank car design, including tank heads, shells, and fittings that create an unnecessary, unacceptable, and demonstrated risk, which may result in the catastrophic release of a tank car's product in an accident. The NTSB continues to find that accidents involving the rupture of DOT-111 tank cars carrying hazardous liquids often have violent and destructive results. Phasing out DOT-111 tank cars is already overdue and every day that goes by with this unsuitable equipment in crude oil transport operations creates an unnecessary risk of a tragic disaster.

Accordingly, the proposed time-frame released by Transport Canada to allow until 2025 for replacement of these unacceptable tank cars is too long.

*Question 11.* Looking at crude-by-rail accidents and subsequent explosions since the tragedy in Quebec, how many, if any, were made worse by poor braking performance—that is to say, the so-called "pile-up" of cars after the initial derailment? a. Which ones? b. By what magnitude?

Answer. The NTSB has long focused on preventing accidents in the first place. While we have not issued recommendations to improve braking in these past investigations, we continue to look at braking performance in on-going investigations. We do not have the data to respond to sub-questions a. and b.

Nevertheless, the NTSB supports PHMSA's proposal for improved stopping performance using braking systems that could reduce the likelihood of a tank car being punctured during a derailment.

*Question 12.* Do you believe that the actions currently underway by the Administration will adequately address the concerns raised in this year's NTSB's "Most Wanted" list of suggestions, prior to the release of your 2016 list?

Answer. While there is a lot of work that needs to be done to address the NTSB's concerns raised in this year's Most Wanted List related to rail tank car safety, the NTSB is pleased that some progress has been made. PHMSA published a notice of proposed rulemaking (NPRM) on August 1, 2014, Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains. PHMSA proposes, in coordination with FRA, new operational requirements and improved tank car standards for certain trains transporting large volumes of hazard Class 3 flammable liquids. It also proposes revising the general requirements for offerors to ensure proper classification and characterization of mined gases and liquids. The NTSB remains engaged in that rulemaking and in NTSB comments dated September 26, 2014, we urged PHMSA and FRA to address the following six recommendations as promptly as possible.

To PHMSA:

- Require that all newly manufactured and existing general service tank cars authorized for transportation of denatured fuel ethanol and crude oil in Packing Groups I and II have enhanced tank head and shell puncture resistance systems and top fittings protection that exceeds existing design requirements for DOT-111 tank cars. (R-12-5)
- Require that all bottom outlet valves used on newly manufactured and existing non-pressure tank cars are designed to remain closed during accidents in which the valve and operating handle are subjected to impact forces. (R-12-6)
- Require that all newly manufactured and existing tank cars authorized for transportation of hazardous materials have center sill or draft sill attachment

designs that conform to the revised Association of American Railroads' design requirements adopted as a result of Safety Recommendation R-12-9. (R-12-7)

- Inform pipeline operators about the circumstances of the accident and advise them of the need to inspect pipeline facilities after notification of accidents occurring in railroad rights-of-way. (R-12-8)

To the FRA:

- Work with PHMSA to expand hazardous materials route planning and selection requirements for railroads under 49 CFR 172.820 to include key trains transporting flammable liquids as defined by AAR Circular No. OT-55-N and, where technically feasible, require rerouting to avoid transportation of such hazardous materials through populated and other sensitive areas (R-14-1) and;
- Audit shippers and rail carriers of crude oil to ensure they are using appropriate hazardous materials shipping classifications, have developed transportation safety and security plans, and have made adequate provision for safety and security. (R-14-3)

Since then, we also issued additional recommendations we hope will be part of the ongoing rulemaking.

To PHMSA:

- Require that all new and existing tank cars used to transport all Class 3 flammable liquids be equipped with thermal protection systems that meet or exceed the thermal performance standards outlined in Title 49 Code of Federal Regulations 179.18(a) and are appropriately qualified for the tank car configuration and the commodity transported. (R-15-14)
- In conjunction with thermal protection systems call for in safety recommendation R-15-14, require that all new and existing tank cars used to transport all Class 3 flammable liquids be equipped with appropriate sized pressure relief devices that allow the release of pressure under fire conditions to ensure thermal performance that meets or exceeds the requirements of Title 49 Code of Federal Regulations 179.18(a), and that minimizes the likelihood of energetic thermal ruptures. (R-15-15)
- Require an aggressive, intermediate progress milestone schedule, such as a 20 percent yearly completion metric over a 5-year implementation period, for the replacement or retrofitting of legacy DOT-111 and CPC-1232 tank cars to appropriate tank car performance standards that include equipping these tank cars with jackets, thermal protection, and appropriately sized pressure relief devices. (R-15-16)
- Establish a publicly available reporting mechanism that reports at least annually, progress on retrofitting and replacing tank cars subject to thermal protection system performance standards as recommended in safety recommendation R-15-16. (R-15-17)

We will continue to monitor PHMSA's progress and will ensure that decision-makers have the full benefit of the lessons the NTSB has learned through its investigations. The NTSB strongly believes in a three-tiered approach to rail safety involving industry, emergency planning and response organizations, and the public. Railroads must pursue aggressive mitigation strategies, adopt operating restrictions, apply better braking technology, conduct risk analyses to select the safest routes, and ensure that track inspection is of the highest quality and proper frequency. Railroads, communities, and emergency responders must develop comprehensive response plans, ensure their preparedness for responding to worst-case releases in accidents, and expand public awareness. Shippers must use the most robust tank cars available to lessen the consequences of accidents involving hazardous materials.

We have urged PHMSA to move these critical safety initiatives forward promptly and to issue a final rule incorporating the proposed regulations without delay. We believe that the NPRM would provide balanced actions (with certain improvements suggested in our comment letter), improve safety in transporting large volumes of flammable liquids by railroad, and avoid overreliance on any single risk-reduction strategy. The NTSB's deliberations on its 2016 Most Wanted List will weigh all these considerations and PHMSA's timeliness heavily.

NATIONAL TRANSPORTATION SAFETY BOARD  
 Washington, DC, September 26, 2014

U.S. Department of Transportation,  
 Docket Management System,  
 Docket Operations, M-30,  
 Ground Floor, Room W12-140,  
 Washington, DC.

Attention: Docket No. PHMSA-2012-0082 (HM-251)

Dear Sir or Madam:

The National Transportation Safety Board (NTSB) has reviewed the Pipeline and Hazardous Materials Safety Administration's (PHMSA) August 1, 2014, notice of proposed rulemaking (NPRM), *Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains*.<sup>1</sup> In this notice, PHMSA, in coordination with the Federal Railroad Administration (FRA), proposes new operational requirements and improved tank car standards for certain trains transporting large volumes of hazard class 3 flammable liquids. It also proposes revising the general requirements for offerors to ensure proper classification and characterization of mined gases and liquids. PHMSA notes that the proposed requirements are designed to reduce the frequency and consequences of accidents involving certain trains transporting large volumes of flammable liquids. The risks posed by such trains are illustrated in the catastrophic consequences of recent derailments at Casselton, North Dakota; Aliceville, Alabama; and Lac-Mégantic, Quebec, Canada.

The NPRM addresses NTSB Safety Recommendations R-12-5 and R-12-6, which we issued on March 2, 2012, as a result of the June 19, 2009, derailment of an ethanol unit train of U.S. Department of Transportation (DOT) specification 111 (DOT-111) tank cars in Cherry Valley, Illinois.<sup>2</sup> The NPRM also addresses Safety Recommendations R-14-1, R-14-3, R-14-4, and R-14-6, which we issued on January 23, 2014. These recommendations were derived from our participation in the Transportation Safety Board of Canada (TSB) investigation of the July 6, 2013, accident in Lac-Mégantic, Quebec.<sup>3</sup>

The NTSB safety recommendations urge PHMSA to take the following actions:

- Require that all newly manufactured and existing general service tank cars authorized for transportation of denatured fuel ethanol and crude oil in Packing Groups I and II have enhanced tank head and shell puncture-resistance systems and top fittings protection that exceeds existing design requirements for DOT-111 tank cars. (R-12-5)
- Require that all bottom outlet valves used on newly manufactured and existing nonpressure tank cars are designed to remain closed during accidents in which the valve and operating handle are subjected to impact forces. (R-12-6)
- Work with the FRA to expand hazardous materials route planning and selection requirements for railroads under Title 49 *Code of Federal Regulations (CFR)* 172.820 to include key trains transporting flammable liquids as defined by the Association of American Railroads (AAR) Circular No. OT-55-N and, where technically feasible, require rerouting to avoid transportation of such hazardous materials through populated and other sensitive areas. (R-14-4)
- Require shippers to sufficiently test and document the physical and chemical characteristics of hazardous materials to ensure the proper classification, packaging, and recordkeeping of products offered in transportation. (R-14-6)

The NTSB recommendations also ask the FRA to take the following actions:

- Work with PHMSA to expand hazardous materials route planning and selection requirements for railroads under 49 *CFR* 172.820 to include key trains transporting flammable liquids as defined by AAR Circular No. OT-55-N and, where technically feasible, require rerouting to avoid transportation of such hazardous materials through populated and other sensitive areas. (R-14-1)

<sup>1</sup>*Federal Register* 79, no. 148 (August 1, 2014): 45016.

<sup>2</sup>National Transportation Safety Board, *Derailement of CN Freight Train U70691-18 With Subsequent Hazardous Materials Release and Fire, Cherry Valley, Illinois, June 19, 2009*, Accident Report/RAR-12-01 (Washington DC: NTSB, 2012).

<sup>3</sup>Transportation Safety Board of Canada, *Runaway and Main-Track Derailement, Montreal, Maine & Atlantic Railway Freight Train MMA-002, Mile 0.23, Sherbrooke Subdivision, Lac-Mégantic, Quebec, 06 July 2013* (Gatineau, Quebec, Canada: TSB, 2014).

- Audit shippers and rail carriers of crude oil to ensure they are using appropriate hazardous materials shipping classifications, have developed transportation safety and security plans, and have made adequate provision for safety and security. (R-14-3)

We are pleased that you are taking a broad systems approach in this NPRM—encompassing accident prevention, mitigation, and emergency response—toward managing the safety risks posed by high-hazard flammable trains (HHFTs).<sup>4</sup> PHMSA proposes to improve performance standards for existing tank cars and establish standards for new DOT specification 117 (DOT-117) and specification 117P (DOT-117P) tank cars. PHMSA also addresses classification and characterization of mined gases and liquids, requires rail routing risk assessment for HHFTs, requires notification to state emergency response commissions (SERC) of the operation of trains transporting 1 million gallons or more of Bakken crude oil in their jurisdictions, and requires reduced operating speeds and enhanced braking.

The NTSB emphasizes the importance of implementing the six safety recommendations listed above as rapidly as possible. Furthermore, we are also concerned about several aspects of the proposed regulations:

1. The proposed requirements for notifying state agencies about rail shipments of hazardous materials through their territories do not include ethanol.
2. The proposed notification requirements are limited to shipments of crude oil from only one area (Bakken formation).
3. The proposed classification and characterization rules do not apply to all hazardous materials.
4. The proposed classification and characterization rules do not include specific requirements for the sampling and testing needed to properly characterize hazardous materials destined for rail shipment.
5. The proposed speed restrictions are based on a large populated area rather than on a potential impact radius where individuals could be harmed along flammable liquids rail corridors.
6. The proposed enhanced standards for new and existing tank cars offer options that do not achieve an acceptable level of safety and protection.
7. The proposed alternative tank car performance standards lack impact-resistance metrics.
8. The proposed retrofitting requirements for existing DOT-111 tank cars do not require top fittings protection.
9. The proposed bulk packaging standards would allow existing legacy DOT-111 fleet to remain in flammable liquid service on trains not designated as HHFTs.

Our comments follow the order in section V of the NPRM. We also respond to questions in section V that are germane to our safety recommendations and to other matters on which we have a basis for commenting.

#### **High-Hazard Flammable Trains**

Safety Recommendation R-14-4 urges PHMSA to include “key trains” carrying flammable liquids in its route-planning requirement. The recommendation refers to the definition of key train in AAR Circular No. OT-55-N, which lists 20 tank cars of any combination of hazardous material as the threshold number of tank cars in the consist.<sup>5</sup> In referring to the AAR circular, we intended to suggest using a pre-existing industry standard for route planning, but not to endorse a 20-tank-car threshold for HHFTs. We caution you not to use Safety Recommendation R-14-4 to imply that we endorse a 20-tank-car threshold for any other purpose.

*Question 3. To what extent do the covered hazardous materials, including crude oil and ethanol, have differing risks when they are in HHFTs?*

As demonstrated in recent accidents, the two products have a similar potential for causing injuries, fires, energetic fireball eruptions, and property damage. Although the products behave differently in the environment and require different strategies for firefighting, containment, and cleanup, they pose similar hazards to property and persons, and should be treated similarly in the regulations. We believe

<sup>4</sup>The proposed rule defines a high-hazard flammable train as a one containing 20 or more carloads of a class 3 flammable liquid. The rule primarily affects unit train shipments of ethanol and crude oil because those commodities are most often transported in high-volume shipments in trains having 20 or more cars.

<sup>5</sup>Association of American Railroads, *Recommended Railroad Operating Practices for Transportation of Hazardous Materials*, Circular No. OT-55-N (Washington, D.C.: AAR, 2013).

that crude oil and ethanol should have identical packaging and operational requirements.

PHMSA also seeks comment on the definition of an HHFT. We believe the definition should include a broad range of hazardous materials, similar to the revised definition of a key train in AAR Circular No. OT-55-N. The circular's reference to "any combination of hazardous material" includes hazard class 2, division 2.1 (flammable gas) materials and combustible liquids, as defined at 49 *CFR* 173.115(a) and 173.120(b). The provisions of the AAR circular demonstrate that the railroad industry recognizes that additional safety precautions, including speed restrictions, are needed for key trains that transport any hazardous materials. The proposed rule should be at least as protective as the AAR circular and should therefore apply to class 2 flammable gases such as liquefied petroleum gas.

#### **Notification to State Emergency Response Commissions**

Proposed 49 *CFR* 174.310(a)(2) would apply to any railroad that transports in a single train 1 million gallons or more of petroleum crude oil, hazard class 3 (identification number UN 1267), sourced from the Bakken shale formation in the Williston Basin (centered in North Dakota but extending to South Dakota and Montana in the United States and to Saskatchewan and Manitoba in Canada). The proposed rule would require railroads to provide written notification to SERCs of the estimated number of such trains expected to travel per week through each county in each state and of the routes over which the crude oil is to be transported. The notification would also describe the crude oil, give applicable emergency response information, and list at least one railroad point of contact.

We recently completed our investigation of a November 2012 Conrail freight train derailment in Paulsboro, New Jersey, in which vinyl chloride was released.<sup>6</sup> We concluded that active participation by railroads in local emergency planning would yield safer and more efficient responses to railroad accidents that result in the release of hazardous materials. In addition to notifying SERCs and local communities about the volume of hazardous materials traffic through their areas, we believe that carriers should provide communities with comprehensive emergency planning assistance. Accordingly, we issued the following safety recommendation to the DOT:

Require railroads transporting hazardous materials through communities to provide emergency responders and local and state emergency planning committees with current commodity flow data and assist with development of emergency operations and response plans. (R-14-14)

Although the NPRM does not specifically address Safety Recommendation R-14-14, it proposes that railroads notify emergency responders whenever a single hazardous commodity, Bakken crude oil, is transported in quantities of more than 1 million gallons through their area. The intent of Safety Recommendation R-14-14, however, is to urge you to require railroads to provide notification and emergency planning assistance for all classes of hazardous material transported through communities, at thresholds such as the those established in the Emergency Planning and Community Right-to-Know Act for fixed facilities.<sup>7</sup> We urge you to fully and expeditiously address Safety Recommendation R-14-14 in this rulemaking.

We disagree with restricting the proposed notification requirement to petroleum crude oil sourced exclusively from the Bakken shale formation. We believe that proposed 49 *CFR* 174.310(a)(2) should apply at a minimum to all class 3 flammable liquids transported in an HHFT. The properties that make crude oil flammable and hazardous are not limited to oil sourced from the Bakken formation. As one recent study concludes, "Bakken crude oil does not pose risks significantly different from other crude oils or other flammable liquids."<sup>8</sup> Bakken crude is also reported to be similar to crude oils from other geologic formations. For example, the light ends (ethane, propane, butane, pentane) of Bakken crude have been found to be comparable to those of oils produced elsewhere in North America, such as in the Eagle Ford formation in Texas.<sup>9</sup>

We are particularly concerned that ethanol, the other hazard class 3 commodity commonly transported in unit trains, is not included in the proposed notification re-

<sup>6</sup>National Transportation Safety Board, *Conrail Freight Train Derailment with Vinyl Chloride Release, Paulsboro, New Jersey, November 30, 2012*, Accident Report NTSB/RAR-14-01 (Washington DC: NTSB, 2014).

<sup>7</sup>Title 42 *United States Code*, Chapter 116.

<sup>8</sup>*A Survey of Bakken Crude Oil Characteristics Assembled for the U.S. Department of Transportation* (Prepared by Dangerous Goods Transport Consulting Inc. for American Fuel & Petrochemical Manufacturers, May 14, 2014).

<sup>9</sup>*Study Report of the Bakken Crude Characterization Task Force* (Prepared by Turner, Mason & Company for North Dakota Petroleum Council, August 4, 2014).

quirements. While comparative accident data are limited, we believe it likely that if ethanol rather than crude oil had been transported in the train that derailed in Lac-Mégantic, a similar massive pool fire would have resulted. Notification to emergency planners and responders of the presence of tank car shipments of ethanol in their jurisdictions is critical for the same reasons you propose notification requirements for shipments of crude oil. Communities must be prepared to respond to the firefighting challenges posed by ethanol accidents—by having alcohol-resistant firefighting foam readily available, for example—and to the difficulties associated with recovering ethanol released to the environment.

*Question 1. Whether codifying the requirements of the Order in the HMR is the best approach for the notification requirements, and whether particular public safety improvements could be achieved by requiring the notifications be made by railroads directly to emergency responders, or to emergency responders as well as SERCs or other appropriate state delegated entities.*

We note in our report on the Paulsboro, New Jersey, accident that unlike fixed facilities, railroads transporting hazardous materials are not required to work with communities to develop emergency plans.<sup>10</sup> Emergency planning responsibilities should include providing: (1) emergency planning notification to both local and state emergency planning committees, (2) an emergency coordinator who participates in the local emergency planning process, (3) notice of any operational changes that could affect emergency planning, and (4) any information necessary to develop and implement local emergency plans.

The absence of a regulatory requirement for railroads to notify and assist local emergency planning committees leaves communities unprepared to deal with releases of hazardous materials. We believe that the DOT emergency restriction/prohibition order targeting railroad transportation of crude oil from a single geographic region in the United States does not go far enough, and that community notification and planning should be required for all hazardous materials transported by rail. We have found that despite voluntary outreach and community awareness programs, such as the Transportation Community Awareness and Emergency Response program, many communities and emergency responders are unaware of and unprepared for the risks associated with hazardous materials traffic on railroads. For this reason, we issued the following safety recommendation to PHMSA:

Require railroads transporting hazardous materials to develop, implement, and periodically evaluate a public education program similar to 49 CFR Parts 192.616 and 195.440 for the communities along railroad hazardous materials routes. (R-14-19)

We believe that the best approach to regulating notification would be to codify the requirements detailed in Safety Recommendations R-14-14 and R-14-19.

*Question 2. Whether the 1,000,000-gallon threshold is appropriate, or whether another threshold such as the 20-car HHFT threshold utilized in this NPRM's other proposals is more appropriate. If you believe that a threshold other than 1,000,000 gallons is appropriate, please provide any information on benefits or costs of the change, including for small railroads.*

We are concerned that 1 million gallons is significantly above a reasonable risk threshold. At that value, notification would apply only to trains with more than about 35 tank car loads. Yet catastrophic derailment failure involving even a single tank car loaded with flammable liquid can cause extensive destruction and loss of life. Therefore, we believe that the notification threshold should be significantly lower. In addition, the threshold should be based on the worst-case consequences of a derailment resulting in fire. At a minimum, the threshold should be set no higher than the value in the proposed definition of an HHFT.

*Question 6. Whether such information should be deemed SSI, and the reasons indicating why such a determination is appropriate, considering safety, security, and the public's interest in information.*

We believe that notification information should raise the awareness of both the general public and stakeholders about hazardous materials routes running through their communities. Having an informed public along rail routes could supplement a carrier's safety measures and help reduce the consequences of emergencies involving hazardous materials. Classifying routing information about hazardous materials

<sup>10</sup>Conrail Freight Train Derailment with Vinyl Chloride Release (Washington, D.C.: NTSB, 2014).

as “security sensitive” would unreasonably restrict the public’s access to information that is important to its safety.

An informed public can be prepared to implement protective actions when accidents occur. While the general public may not require detailed information, such as the specific numbers, dates, and times of hazardous materials tank cars traveling on a route, people need to know whether they live or work near a hazardous materials route. They also need to be aware of the hazards associated with releases, what rail carriers do to prevent accidents and mitigate consequences, how to recognize and respond to an emergency, what protective action to take in the event of a hazardous materials release, and how to contact rail carriers regarding specific concerns.

#### **Rail Routing Risk Assessment**

We believe that the proposed rule, if implemented, would satisfy the intent of Safety Recommendation R-14-4, which urges PHMSA to: (1) expand the hazardous materials route-planning and selection requirements for railroads under 49 *CFR* 172.820 to include key trains transporting flammable liquids, and (2) to require re-routing to avoid transporting hazardous materials through sensitive areas. You propose to expand current 49 *CFR* 172.820(a) by making it applicable to HHFTs. You also propose to create a new section, 49 *CFR* 174.310, which would subject HHFTs to the additional requirements in Part 172, Subpart I, for developing security plans for the transportation of hazardous materials.

Proposed 49 *CFR* 174.310(a)(1) would require rail carriers that operate HHFTs to analyze the safety and security risks along the routes where such trains operate, to assess alternate routing options, and to make routing decisions based on the assessments. Rail carriers would be required to conduct an annual analysis addressing 27 risk factors, such as volume of hazardous materials transported; track type, class, and maintenance schedule; track grade and curvature; environmentally sensitive or significant areas; population density along the route; emergency response capability along the route; and areas of high consequence along the route, as defined in 49 *CFR* 172.820(c). Carriers would also be required to identify alternate routes over which it has the authority to operate and to perform a safety and security risk assessment of those routes. Carriers would be required to use their risk analysis to select viable routes that pose the lowest overall safety and security risk.

#### **Classification and Characterization of Mined Gases and Liquids**

The proper classification and characterization of hazardous materials is a key requirement under the hazardous materials regulations. Classification (determination of a material’s hazard class based on certain physical properties) and characterization (determination of a material’s other relevant chemical and physical properties) are of paramount importance in selecting appropriate packaging, in assessing risks when developing safety and security plans, and in assuring the safety of emergency responders and other individuals who might come in contact with hazardous materials. The importance of accurate classification is underscored by your proposed phase-out schedule for DOT-111 tank cars in HHFT service.

We are concerned that the proposed classification and characterization rule applies only to mined gases and liquids. We believe that the rules should apply to shippers of all hazardous materials, as is the intent of Safety Recommendation R-14-6. Although the current hazardous materials regulations prescribe test methods for assigning appropriate classifications, shippers are not required to maintain records showing that the physical and chemical properties of a hazardous material were sufficiently evaluated to justify the description and classification used in transporting it.

We support the proposed 49 *CFR* 173.41 sampling and testing program. The proposed regulation addresses issues that prompted us to issue Safety Recommendation R-14-6, such as offerors using generic safety data sheets that result in improper classification of crude oil, rather than validating crude oil properties through testing. We are concerned, however, that the proposed rule does not include specific requirements for characterization tests that would identify the effects of a material on both the reliability and the safety of packaging. Physical testing would improve the evaluation of a material for its impact on operational and package selection requirements under the hazardous materials regulations.

We agree with your proposal to require shippers to maintain records of sampling, testing, personnel training, and other elements of the program. Permanent records, electronic or paper-based, will provide evidence that a shipper is following the written program. Your proposal addresses the intent of the recordkeeping issue raised in Safety Recommendation R-14-6.

PHMSA also seeks comment from the regulated community on the role of vapor pressure in the classification, characterization, and packaging of flammable liquids, and on whether regulatory changes to establish vapor pressure thresholds for packaging selection are necessary. We believe that setting vapor pressure thresholds for packaging selection would clarify package limitations for shippers and encourage them to select the safest tank car for transporting flammable materials. We understand that the purpose of a vapor pressure threshold would be to define the point at which volatile flammable materials would require transport in pressure tank cars. We suggest that you review the TSB laboratory report on the analysis of crude oil samples, which suggests that the size of a fireball resulting from the ignition of spilled crude oil strongly depends on vapor pressure.<sup>11</sup>

*Question 3. Would more or less specificity regarding the components of a sampling and testing program aid offerors (sic) of shipments to be in compliance with proposed § 173.41?*

We believe the rule should specify minimum required properties of mined gas and liquids to be included in sampling and testing plans and that it should list acceptable test methods. Without uniform testing and sampling requirements, shippers are free to develop individual testing regimes, which can yield subjective characterizations of hazardous materials. Moreover, non-uniform testing will not support data analysis or enforcement.

*Question 4. Do the guidelines provides (sic) sufficient clarity to offerors to understand whether they are in compliance with these requirements?*

As noted in the NPRM, the American Petroleum Institute is developing Recommended Practice 3000 to spell out industry best practices for testing and sampling methods. We urge you to consider adopting an appropriate recommended practice or to provide specific guidance in the rule mandating uniform sampling and testing methods.

#### **Additional Requirements for High-Hazard Flammable Trains**

##### *Speed Restriction*

We agree that HHFT speed restrictions are vital to reducing risks in the transportation of hazardous materials. Tank car crashworthiness is inversely related to train speed—that is, crashworthiness generally increases as speed decreases. Nevertheless, catastrophic tank car ruptures can occur at speeds below even 10 mph.<sup>12</sup> We have not conducted or commissioned tests or research to examine the effects of different speeds. Therefore, we cannot comment about the specific values proposed in the NPRM. We nevertheless believe that lower operating speeds would yield safety benefits, especially if lower speeds were combined with distributed power units, two-way end-of-train devices, or electronically controlled pneumatic brakes. Because lower operating speeds reduce the kinetic energy in a train consist, they could, if coupled with improved stopping ability, minimize the dynamic behavior and number of tank cars involved in an accident.

We interpret the proposed HHFT speed restrictions as follows: For tank cars that have enhanced brake systems and all DOT-117 tank cars, the speed limit would be 50 mph. For tank cars with enhanced brake systems and some flammable liquids in non-DOT-117 cars, three options for speed restrictions are proposed: (1) 40 mph in all areas, (2) 40 mph in areas with populations of 100,000 or more, or (3) 40 mph in high-threat urban areas. For tank cars without enhanced brakes, the speed limit would be 30 mph.

We disagree with your plan to set speed limits based on general population size. Instead, speed limits should be based on the population that is close enough to a derailment involving a flammable material to be in harm's way. An exposure to a rail transportation hazard is inversely proportional to the distance away from the track. When comparing small and large population densities, the large population areas and high threat urban areas (HTUA) have greater security vulnerabilities, which you have offered as a basis for the proposed Option 3 speed restriction. However, accidental safety-related events have a much greater probability of occurrence than an intentional (criminal) action. Furthermore, we believe there is no credible train derailment scenario involving a flammable liquid event, accidental or intentional, involving even a unit train that could jeopardize a population of 100,000 or more or the population within an HTUA.

<sup>11</sup>Transportation Safety Board of Canada, Laboratory Report LP 148/2013, "Analysis of Crude Oil Samples" (Appendix K of *Runaway and Main-Track Derailment, Montreal, Maine & Atlantic Railway Freight Train MMA-002*), available online at [www.tsb.gc.ca](http://www.tsb.gc.ca).

<sup>12</sup>See *Conrail Freight Train Derailment with Vinyl Chloride Release* (NTSB, 2014).

The proposed regulation for speed restrictions should be based on scenarios that might actually harm individuals, as is the approach used in the PHMSA gas pipeline regulations. Those regulations establish threat zones in which a potential impact radius (PIR) is calculated based on pipe size and operating conditions. The number of occupied buildings in a PIR is counted along the entire length of a pipeline. If the number of buildings exceeds the threshold PIR value, the pipeline is designated to be in a high-consequence area. The pipeline operator must then implement an integrity management program for that pipeline segment. We suggest that you could develop similar “impact radius” and “occupied building” criteria based on the specific fire and explosion hazards associated with an HHFT along a designated rail corridor. You could then assign speed restrictions to reduce the risk in that corridor.

*Question 7. What other geographic delineations—in addition to HTUAs and cities with 100,000 people or more—should PHMSA consider as an Option for a 40-mph speed restriction in the absence of a proposed DOT-117 tank car?*

We urge you to consider HHFT speed restrictions that specifically address reducing the risk of a major flammable liquid release into a navigable waterway or environmentally sensitive area. For example, an April 30, 2014, derailment of a crude oil unit train in Lynchburg, Virginia, released nearly 30,000 gallons of crude oil from one tank car into the James River, causing significant environmental damage.

#### *Alternative Brake Signal Propagation Systems*

The NPRM discusses improved stopping performance using braking systems that could reduce the likelihood of a tank car being punctured during a derailment. We agree with the proposal to require that all HHFTs be equipped with alternative brake signal propagation systems (either distributed power units, two-way end-of-train devices, or electronically controlled pneumatic brakes). We further suggest that you prohibit the use of conventional locomotives for HHFT service.

#### **Enhanced Standards for New and Existing Tank Cars**

##### *New DOT Specification 117 Tank Car*

PHMSA proposes new standards for tank cars used in HHFTs as Part 179, Subpart D. The new DOT-117 cars would offer improved crashworthiness over the current DOT-111 tank cars. The new standards address tank car head and shell puncture resistance, top fittings protection, and bottom outlet performance, which are addressed in Safety Recommendations R-12-5 and R-12-6; the new standards also address thermal protection systems.

On April 22-23, 2014, we held a forum titled “Rail Safety: Transportation of Crude Oil and Ethanol.” Testimony at the forum suggested that regulators, railroad industry, tank car builders, and tank car owners disagree about the level of protection needed for tank cars that transport flammable materials. The lack of consensus continues as you are proposing three design options for tank cars built after October 1, 2015, for use in transporting class 3 flammable liquids in HHFTs. The safety features for tank cars constructed under each option, as listed in Table 2 (“Safety Features by Tank Car Option”) of the NPRM, can be summarized as follows:

- Option 1, the PHMSA-and FRA-designed tank car, would have full-height, 1/2-inch-thick head shields; a shell at least 9/16-inch thick constructed of TC-128 Grade B normalized steel; an 11-gauge jacket with thermal protection system; a reclosing pressure-relief device; a top fittings protection system capable of sustaining rollover at 9 mph without failure; a removable handle on the bottom outlet (if present) or one designed to prevent unintended actuation in an accident; and electronically controlled pneumatic brakes.
- Option 2, the AAR-recommended tank car, would have the same features as in option 1, except that top fittings would be equipped in accordance with AAR specifications for tank cars, and braking would be improved with distributed power or end-of-train devices.
- Option 3, the enhanced CPC-1232 tank car, would have the same features as in option 2 except for a thinner (7/16-inch) tank shell.

Safety Recommendations R-12-5 and R-12-6, regarding enhanced tank car specifications and retrofitting for ethanol and crude oil, are linked only to Packing Groups I and II. We believe, however, that you make a compelling argument for why enhanced packaging requirements should be required for HHFTs that transport materials in Packing Group III as well. We agree with you that large volumes of flammable material in any packing group transported in an HHFT pose significant safety and environmental risks in accidents (as summarized in Table 22 of the NPRM, “Enhanced Car Standards for Flammable Liquids in HHFT”). We also agree

that requiring Packing Group III materials to be transported in a more robust tank car than currently used would reduce the potential for environmental damage by decreasing the probability of hazardous material releases.

Testimony at the NTSB rail safety forum by advocates representing tank car owners suggests their continued support for construction to the CPC-1232 base standard, which unlike option 3, does not require a jacket, thermal protection, or full-height head shields. Table 17 of the NPRM (“Effectiveness of Newly Constructed Tank Car Options Relative to the Non-Jacketed DOT 111 Specification Tank Car”) indicates that, based on modeling, the CPC-1232 standard would provide less puncture resistance than any of these options. The table also indicates that option 3 would offer significantly less puncture resistance than options 1 and 2. The discussion in the NPRM of option 3 states, “This standard is the configuration PHMSA believes will be built for HHFT service in the absence of regulation. . . .” We are concerned that to the contrary, without a regulation, new tank cars will continue to be built to the less-protective CPC-1232 standard (non-jacketed, half-head shield) and that the railroad industry will not act to phase out or retrofit the existing DOT-111 fleet.

We understand that as proposed, tank cars built to any one of the three options would be designated as DOT-117 cars. We are concerned that if so, carriers are likely to select option 3, which is the least costly (see NPRM Table 5, “20 Year Costs and Benefits by Stand-Alone Proposed Regulatory Amendments 2015–2034”), even though that option offers the least improvement in safety. We therefore urge you to reexamine your plan to include all three options and instead, include only the option that achieves the highest level of safety and protection.

You also propose an alternative performance-based design requirement for each tank design option. This “performance standard” is intended to encourage innovation and new materials that would provide puncture resistance and thermal protection equivalent to the DOT-117 options. Tank cars built to the performance standard would be classified as DOT-117P.

We are concerned that the proposed performance standards do not give sufficient guidance for puncture-resistance tests. The proposed regulations at 49 *CFR* 179.202-11(c), 179.203-11(c), and 179.204-11(c) give only minimum side impact speeds for head and shell puncture tests using a 12-inch-by-12-inch impactor, with no further discussion about test conditions or about how to interpret results. On July 18, 2014, Transport Canada proposed to amend Canada’s Transportation of Dangerous Goods regulations to require a new Class TC-140 tank car for rail transport of flammable materials. In contrast to your proposed regulations, Transport Canada proposes puncture resistance performance criteria that specify such details as geometry of the impacting punch, tank car outage and lading specific gravity, constraint on the tank, required alignment of the impactor with the tank, and when the impact test would be considered successful. We believe that your proposed rule should include similar requirements.

#### *Existing Tank Cars for High-Hazard Flammable Trains*

The NPRM addresses Safety Recommendations R-12-5 and R-12-6 with respect to the current DOT-111 fleet used in HHFT service. You propose to require that existing tank cars be retrofitted to meet performance standards for the applicable tank car specification option in Part 179, Subpart D. Retrofitted tank cars would meet the DOT-117P performance standard, except that they would not be required to add the top fittings protection.

The reason retrofitting for top fittings protection would not be required in the proposed rule is that you believe the cost of such a retrofit is not supported by a corresponding safety benefit. You claim that “the volume of releases from top fittings is a fraction, typically less than 5 percent of the volume of releases from tank shell and head punctures.” Contrary to your claim, we call attention to data from two recent accidents showing that large volumes of flammable liquids were released through breaches in damaged top fittings alone (see table 1).

Table 1. Releases of Flammable Liquids from Tank Cars Breached Only Through Top Fittings in Two Recent Accidents

Accident Site	Accident Date	Car Number	Lading (gal)	Amount Released (gal)	Percent of Contents Released
Cherry Valley, IL	June 2009	CITX 224236	28,757	26,357	92
Cherry Valley, IL	June 2009	CTCX 731599	28,800	20,700	72
Cherry Valley, IL	June 2009	NATX 303067	28,776	11,051	38
Tiskilwa, IL	October 2011	UTLX 208371	28,905	10,706	37

The Lac-Mégantic accident also clearly demonstrates the benefits of top fittings protection. The TSB accident investigation found that unprotected top fittings were breached in 16 out of 31 DOT-111 tank cars, while breaches occurred in only 4 of 32 tank cars equipped with top fittings protection.<sup>13</sup> In its accident report (p. 110), the TSB states:

Without adequate top-fitting protection during a rollover, and without design improvements to bottom outlet valves, there is an increased risk of product release when general-service Class 111 [DOT-111] cars are involved in derailments. If Class 111 tank cars that do not meet enhanced protection standards transport flammable liquids, there is an ongoing risk of product loss and significant damage to persons, property, and the environment when these cars are involved in accidents.

We strongly urge you to reconsider a retrofit requirement for top fittings protection on DOT-111 tank cars in continued crude oil and ethanol service, as requested by Safety Recommendation R-12-5. Safety Recommendation R-12-5 cannot be closed in an “acceptable” status unless existing tank cars are retrofitted with top fittings protection.

#### *Bulk Packaging Requirements*

We note that the proposed bulk packaging requirements in 49 *CFR* 173.241, 173.242, and 173.243 provide phase-out periods in which DOT-111 tank cars would no longer be authorized for HHFTs. Continued use of DOT-111 tank cars in crude oil and ethanol service is not, however, explicitly prohibited in the proposed new regulation for trains containing 19 or fewer crude oil or ethanol tank cars. It is important to note that 19 tank cars can carry more than 500,000 gallons of flammable liquid. The proposed rule would therefore allow shippers to use tank cars that are less protective than the current (voluntary) industry standard. We urge you to correct the language in proposed *CFR* 49 173.241 through 243 by replacing “high-hazard flammable train service” with “flammable liquid service” in each paragraph.

For Packing Group I, DOT-117 tank cars would be required after October 1, 2017; for Packing Group II, after October 1, 2018; and for Packing Group III, after October 1, 2020. You note that you based those dates on manufacturers’ capacity to build new tank cars, on fleet statistics, and on projected tank car originations. Considering the speed with which the crude oil and ethanol industry has grown in recent years, we believe the industry can achieve the proposed dates. Each delay in implementing a new design requirement allows the construction of more insufficiently protected tank cars that will both increase the immediate risks to communities and require costly modification later. We therefore urge swift adoption in the final rule with aggressive completion dates.

#### **Conclusion**

The NTSB strongly believes in a three-tiered approach to rail safety involving industry, emergency planning and response organizations, and the public. Railroads must pursue aggressive mitigation strategies, adopt operating restrictions, apply better braking technology, conduct risk analyses to select the safest routes, and ensure that track inspection is of the highest quality and proper frequency. Railroads, communities, and emergency responders must develop comprehensive response plans, ensure their preparedness for responding to worst-case releases in accidents, and expand public awareness. Shippers must use the most robust tank cars available to lessen the consequences of accidents involving hazardous materials.

We urge you to promptly move these critical safety initiatives forward and to issue a final rule incorporating the proposed regulations without delay. We believe that the balanced actions offered by the NPRM, with the improvements suggested in this letter, would improve safety in transporting large volumes of flammable liquids by railroad as well as avoid overreliance on any single risk-reduction strategy.

Transport Canada has proposed to amend Canada’s Transportation of Dangerous Goods regulations by requiring a new Class TC-140 tank car for rail transport of flammable materials such as petroleum crude oil and ethanol. The features of the proposed TC-140 car align closely with those of your proposed DOT-117 car under option 1.

We applaud the close cooperation between the United States and Canada in proposing more robust regulations for rail tank cars that carry hazardous materials. The two countries share not only an integrated market but also the increased risks to their lands, structures, and populations posed by the expanded transport of dan-

<sup>13</sup>Transportation Safety Board of Canada, Laboratory Report LP 149/2013.

gerous goods by rail. It is thus crucial for the Federal regulations of both countries to be harmonized to the greatest extent possible.

We appreciate the opportunity to comment on the notice.

Sincerely,

CHRISTOPHER A. HART,  
*Acting Chairman.*

*Question 13.* In that vein, what is missing from the current rulemaking that NTSB would support addressing to further improve safe crude-by-rail movements?

Answer. In addition to the NTSB's emphasis on the importance of implementing the ten safety recommendations listed above as rapidly as possible, we are also concerned about several aspects of the proposed regulations. We would like to see the following addressed:

1. Requirements for notifying state agencies about rail shipments of hazardous materials through their territories, including ethanol.
2. Notifications of all shipments of crude oil meeting the flammable liquid classification in the Hazardous Materials Regulation, not just Bakken formation oil, should be treated the same.
3. Classification and characterization rules applied to all hazardous materials.
4. Classification and characterization rules to include specific requirements for the sampling and testing needed to properly characterize hazardous materials destined for rail shipment.
5. Speed restrictions based on a potential impact radius where individuals or environmentally sensitive areas could be harmed along flammable liquids rail corridors in lieu of large populated areas.
6. Construction standards for new and existing tank cars that achieve an acceptable level of safety and protection.
7. Alternative tank car performance standards that include impact-resistance metrics.
8. Retrofitting requirements for existing DOT-111 tank cars that include top fittings protection.
9. Regulations that would prohibit existing legacy DOT-111 fleet to remain in flammable liquid service even if a train is not designated as a high hazard flammable train (HHFT), which is defined by the proposed regulation as a train containing 20 or more carloads of a Class 3 flammable liquid.

The NTSB comment letter on the NPRM addresses each of these concerns in great detail for further reference. One of the key issues regarding enhanced standards for new and existing tank cars warrants particular elaboration. It is clear that regulators, industry, manufacturers, and owners disagree about the level of protection needed for tank cars that transport flammable materials. The lack of consensus is reflected in the NPRM's three design options for tank cars built after October 1, 2015, for use in transporting Class 3 flammable liquids. We are concerned that carriers selecting the new DOT-117 tank car with improved crashworthiness would select the option offering the least improvement in safety. The NTSB has asked PHMSA to reexamine its three-option proposal and only include the option that would achieve the highest level of safety and protection.

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