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BEFORE THE

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HEARING ON

Surface Transportation Reauthorization: Performance Not Prescription

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Chairman Fischer, Ranking Member Booker, and Members of the Subcommittee, thank you for the opportunity to appear before you today. Safety is the Department of Transportation's top priority, and I am happy to discuss with you the Department's efforts to improve safety across our transportation networks. The Department is using objective, data-driven decision-making processes to adopt new performance-based standards and to heighten the transparency of safety performance of public and private transportation system operators.

The Department is committed to the vision of eliminating fatalities on our nation's transportation system. Recently, the Secretary joined the National Strategy on Highway Safety Toward Zero Deaths, a vision for eliminating fatalities on our Nation's roadways. This is a significant step toward eliminating traffic fatalities. It also echoes a goal of the Department's Strategic Plan, to "work toward no fatalities across all modes of travel." Improving safety means we must aggressively use all tools at our disposal - research into new safety systems and technologies, campaigns to educate the public, investments in infrastructure, targeted oversight and inspection activities, public transparency and accountability, and collaboration with our government partners to support strong laws and data-driven approaches to improve safety.

Part of achieving this vision is adopting, to the greatest extent practical a performance-based approach for all new safety activities, including the development of new safety regulations, the enforcement of existing safety regulations, and other critical safety activities, such as public safety performance reporting.

In the Department's Strategic Plan for 2014-2018, Secretary Foxx established accountability around safety, including performance-based standards and reporting systems to improve the safety of the entire transportation system. In 2012, then-Secretary LaHood formally adopted the Safety Management Systems (SMS) methodology as the official policy of the Department with respect to addressing safety and risk management activities. Some agencies within the Department, namely the Federal Aviation Administration (FAA), have longer experience implementing SMS while others, specifically the Federal Transit Administration (FTA), just

recently acquired safety regulatory authority and is moving aggressively to adopt a performance-based standards approach as it develops a comprehensive regulatory framework.

Using SMS as a framework, our priority is to use our safety programs and regulations as effectively as possible and direct federal resources to address the most serious safety risks. Performance-based standards and the use of safety tools, such as improved data collection, hold significant promise to reduce crashes, fatalities and injuries for users of the transportation system. As noted in the recent Government Accountability Office (GAO) report on performance measures, the Department has initiated numerous performance-based approaches across many agencies and together with many of our grantees.

However, the shift to a performance-based approach can be challenging. It can be complicated to design, may require more and better data and risk models than currently available, and may require different skills of operators and regulators compared to traditional prescriptive (e.g., design) standards. Overseeing a performance-based approach can be more complex than a more prescriptive one. The determination of "adequacy" of compliance with a non-prescriptive standard can be considerably more challenging than the simple "black and white" compliance of a prescriptive (e.g., design) standard. Additionally, there may need to be a greater willingness by the operator to provide data not otherwise available to the regulator. Finally, performance-based regulations will function poorly when implemented in the wrong way, or under the wrong conditions.

Additionally, some modal administrations with a long history of oversight will have to balance their performance-based evolution while carefully examining existing practices for opportunities to move to performance-based approaches without compromising safety or disrupting current approaches that industry and the Department both agree are working effectively to promote safety outcomes. Nonetheless, the Department is committed to creating a performance based culture across our regulatory programs.

Ultimately it is the operator's responsibility to operate safely. However, given the vast numbers of operators of varying levels of sophistication, the Department has the responsibility to communicate, educate, develop new knowledge and technical solutions, and drive risks from any operation to as low as is reasonably achievable.

MAP-21 Performance Measures

The Department has made solid progress addressing the MAP-21 requirements intended to make the surface transportation programs more performance-oriented. For example, the Federal Highway Administration (FHWA) is developing a series of rules that will continue to transform the Federal Highway Program to a performance and outcome based program by increasing coordination, linking investments to outcomes, and improving decision-making and the efficacy and transparency of national reporting. We expect that the safety performance measure rule in particular, when completed, will provide us with a clearer picture of complex crash and roadway characteristic patterns, and better fatality, serious injury and roadway data, thereby allowing policymakers at all levels of government to make better decisions about how to invest limited resources for maximum safety benefit as well as making them more accountable for their decisions.

As required under MAP-21, states that do not meet or make significant progress towards meeting their established safety targets will be held accountable. The FHWA published a Notice of Proposed Rulemaking (NPRM) last year that proposes to establish measures for State departments of transportation to use to carry out the Highway Safety Improvement Program (HSIP) and to assess serious injuries and fatalities per vehicle mile traveled, and the total number of serious injuries and fatalities. States failing to make significant progress would be required to use a Safety Implementation Plan to identify necessary steps to improve their safety performance and use HSIP dollars to address these safety concerns.

MAP-21 also required performance measures for one of the Federal Motor Carrier Safety Administration's (FMCSA) top safety rulemakings that will mandate the use of Electronic Logging Devices (ELDs) to ensure greater compliance with the hours of service rules for certain truck and bus drivers. As part of this rulemaking, FMCSA is proposing new technical specifications for ELDs and the Agency has focused on a performance-based approach to the greatest extent practicable. For example, the draft rule would allow for a variety of options for ELDs from systems that are hard-wired to the vehicle to use of smart-phones and tablets which communicate with the truck or bus via wireless communications. The draft rule also proposed options for presenting the driver's record of duty status information to roadside enforcement officials, including use of the display screen, printouts, e-mail, or ELD-vendor hosted websites. That rulemaking should be completed later this year.

MAP-21 also established program goals and mandated that FMCSA evaluate states' progress in meeting these goals for its primary safety grant program, the Motor Carrier Safety Assistance Program (MCSAP). MCSAP provides financial assistance to states to reduce the number and severity of crashes and hazardous materials incidents involving commercial motor vehicles (CMVs). To receive MCSAP funding, states must implement performance-based activities, including deployment of technology to enhance the efficiency and effectiveness of CMV safety programs. As a condition of receiving MCSAP assistance, states must develop and submit performance-based Commercial Vehicle Safety Plans (CVSPs). These CVSPs provide flexibility that allows each state to focus on the most serious problems unique to their state and allow the state to maximize limited resources while focusing on safety outcomes rather than outputs.

As required by statute, FTA is implementing performance measures to make optimal use of its relatively new safety oversight and standards setting authority. In February 2015, FTA published a NPRM to strengthen the authority of State Safety Oversight Agencies (SSO). The proposed SSO rule reflects the flexible, scalable principles of Safety Management Systems that focus on organization-wide safety policy, proactive hazard identification, and risk informed decision-making as part of risk management, safety assurance, and safety promotion (safety training and communications).

As FTA and the transit industry move towards a performance-based approach, they are working to make sure previous safety efforts are not discarded, and new standards are implemented in a careful and deliberate manner to ensure safety. The rulemaking process to advance the FTA's safety mission is progressing steadily and FTA plans to issue four additional NPRMs for safety plans and programs in the coming year.

GROW AMERICA Proposals

The Moving Ahead for Progress in the 21st Century (MAP-21; Pub. L. 112-141) took important first steps in advancing the Department's safety agenda. It established a streamlined and performance-based surface transportation safety program. The Administration's surface transportation reauthorization proposal, the Generating Renewal, Opportunity, and Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America Act (GROW AMERICA Act) seeks to build on the successes of MAP-21 with even stronger safety provisions that will include measures to make our surface safety regimes even more performance-based and data-driven.

As articulated in the budget, the GROW AMERICA Act nearly triples the budget of the Office of Defects Investigation (ODI) in the National Highway Traffic Safety (NHTSA) to enhance our ability to monitor data, find defects sooner, and strengthen NHTSA's ability to conduct investigations of vehicles with suspected defects. The proposal establishes harsher penalties for manufacturers that refuse to address defective and dangerous vehicles and equipment.

The GROW AMERICA Act also strengthens FHWA's Highway Safety Improvement Program (HSIP) to enable engineers to identify infrastructure and operational hazards to prevent the next crash. It bolsters the Department's safety authority by increasing civil and criminal penalties for FMCSA, NHTSA, and FTA and establishes emergency authority for FTA to restrict or prohibit unsafe transit practices. Further, this proposal provides more than $3 billion over six years through the Federal Railroad Administration (FRA) to assist with commuter railroad and Amtrak route implementation of performance-based Positive Train Control systems designed to prevent certain high-consequence rail incidents.

The proposal provides more than $10 billion over six years for NHTSA and the Federal Motor Carrier Safety Administration (FMCSA) to improve safety for all users of our highways and roads. The GROW AMERICA Act would also streamline our federal truck- and bus-safety grant programs to make them even more performance-oriented while providing greater flexibility for States to address regional and evolving truck- and bus-safety issues. This means that our State partners will be able to use their Motor Carrier Safety Assistance Program funding for motor carrier safety in order to address local truck and bus issues while meeting national safety priorities. By consolidating our grant programs, our State partners will spend less time on administrative grant activities and more time on boots on the ground roadside safety. The bill would also enhance safety through stricter standards for vehicle operators and more rigorous inspections. The proposal also includes a $5.1 billion increase in 2016 to address public transit's maintenance backlog to reduce bus and fixed rail system breakdowns as well as increase overall safety and reliability.

In addition, GROW AMERICA proposes to more than double available funding for the highly competitive Transportation Investment Generating Economic Recovery (TIGER) program, increasing available funding to $1.25 billion annually. Merit-based selection of transportation projects using detailed economic analysis of project costs and benefits, coupled with meaningful performance measurement of all projects further strengthens the Department's performance-based focus and emphasis on measureable outcomes for all grantees. The TIGER program has made significant investments in safety related projects. For example, in the last round of TIGER

funding, New York City (NYC) received a $25 million grant to promote NYC DOT's Vision Zero approach, working to reduce transportation-related injuries and fatalities. The Administration hopes that this Committee will give careful consideration to the provisions included in the GROW AMERICA Act that will improve safety for the traveling public and strengthen our efforts in expanding performance-based approaches.

Data-Driven Processes and Safety Management Systems

A systematic use of data has facilitated FRA's performance-based approach to system safety and risk reduction rulemaking efforts, as mandated by the Rail Safety Improvement Act of 2008 (P.L. 110-432). Last month, FRA published a rule proposing to require each Class I freight railroad and each other freight railroad that FRA determines has inadequate safety performance to develop and implement FRA approved risk reduction programs (RRP). RRP is a comprehensive, system-oriented approach to safety that determines an operation's level of risk by identifying and analyzing applicable hazards and involves developing plans to mitigate, if not eliminate, that risk. In September 2012, FRA published a companion rulemaking proposing to require commuter and intercity passenger railroads to develop and implement system safety programs; a final rule is scheduled to be published this summer.

FRA intends these broader, system safety and risk reduction efforts to dovetail with other initiatives and make regulations more performance-based. Notably, in September 2009, FRA tasked its Railroad Safety Advisory Committee (RSAC) to produce a set of technical performance criteria and procedures to evaluate passenger rail equipment built to alternative designs, to ensure that trainsets based on international platforms can be built for and operated safely in the United States. FRA also tasked the RSAC to develop formal recommendations for addressing industry waiver requests for passenger equipment crashworthiness standards and alternative crashworthiness performance criteria into FRA's regulations. FRA will use the RSAC recommendations to inform a NPRM under development to seek public comment on allowing the industry greater flexibility to meet crashworthiness performance requirements. Similarly, FRA's March 2013 final rule on vehicle/track interaction safety promotes the use of performance-based standards to ensure the safety of the vehicle and track system, based on results of computer simulations of vehicle and track dynamics, consideration of international practices, and thorough reviews of qualification and revenue service test data.

Performance-Based Versus Design-Based Standards for Equipage

While the Department is committed to developing a performance-based culture across its modes, there are instances where it is more appropriate to adopt designed-based or a combination of design- and performance-based standards. When appropriate, moving from design standards to performance-based standards does require careful consideration to ensure the new standards actually improve safety and do not unintentionally introduce unknown risks that could compromise safety. Ensuring the safety of the traveling public and transportation employees must be the overriding factor of all regulatory decisions.

For example, some dashboard warning lamps and hazard-related systems in vehicles are more appropriately design-based to ensure uniformity for driver understanding when switching between vehicles. NHTSA's standards sometimes mandate installation of certain systems or components, including headlamps, seat belts, air bags, rearview cameras, and electronic stability

control, and at the same time include performance standards for those systems or components. Federal Motor Vehicle Safety Standard No. 208, "Occupant Crash Protection," is an example of a performance based standard. It requires that the vehicle restraint systems, including the air bags, provide protection in a crash as measured by instrument readings on test dummies during prescribed crash tests. Of course, the standard also requires installation of certain devices, including some air bags. However, it does not dictate design and manufacturing considerations, such as the deployment thresholds, the air bag size, or color of wiring or connectors associated with air bags.

Finally, with regard to packaging of hazardous materials, the Pipeline and Hazardous Materials Safety Administration (PHMSA) uses performance-based packaging standards for certain bulk and non-bulk packaging. These standards are based on United Nations (UN) Recommendations in which a packaging manufacturer must test a representative design type in accordance with standards stipulated in the Hazardous Materials Regulations. Once a design type has successfully passed a test, a manufacturer must mark every package that is represented as manufactured to meet that UN standard with the corresponding marking indicating the level of testing endured. These tests include drop tests, leak tests, a hydrostatic test, and a stacking test as well as other relevant tests based on the type of packaging. The benefits of this performance-oriented approach include industry's ability to apply innovative technologies (i.e., packaging) or non-traditional methods to meet the stated performance-based criteria without waiting for regulators to modify prescriptive (e.g., design-based) requirements to explicitly permit use of a new technology.

Performance in Safety Enforcement

In addition to utilizing performance standards in developing regulations, the Department utilizes performance metrics, to the greatest extent possible, to guide our safety oversight activities.

PHMSA's Integrity Management (IM) program is based on the fundamental premise that companies should be responsible for managing their own risks, with regulatory agency oversight of their processes, systems and performance. There is evidence that the IM program has been effective, based on the thousands of pipeline anomalies and defects that have been found and fixed as a result of the program—commonly viewed as "accidents avoided"—and to improvements in technology that have been spurred by IM. Performance-based rules provide latitude to private sector operators to customize their compliance programs. This is reflective of the fact that operators manage pipelines created of differing materials manufactured over a very long period of time (with vintage-specific issues) in widely varying environments (e.g., differing soil types, weather) and near or remote from people and sensitive environments.

Further, PHMSA maintains a data portal of pipeline incident reports that provides the time and location of the incident(s), number of any injuries and fatalities; commodity spilled/gas released, causes of failure, and evacuation procedures. The reports are used for identifying long- and short-term trends at the national, state and operator-specific levels. The frequency, causes, and consequences of the incidents provide insight into the safety metrics currently used by PHMSA, state partners, and other pipeline safety stakeholders, including the pipeline industry and general public. PHMSA also uses the data for inspection planning and risk assessment.

The Department is also focused on making the information it collects and makes publicly available even more useful. For instance, PHMSA maintains a database with information collected when there are incidents involving hazardous materials, such as crude oil spills during rail transport. While the database contains valuable information about incidents, PHMSA has recently identified limitations to the information that impede its utility. For instance, sometimes the incident reports filed by industry do not contain the full extent of the property damage, cleanup, and remediation costs of an incident. PHMSA is considering ways to address these and other limitations to improve the utility and transparency of this database.

FMCSA's primary large truck and bus enforcement program, Compliance, Safety Accountability (CSA), uses a Safety Measurement System that compiles motor carrier safety data through roadside inspections, investigations, and reportable crashes to measure a carrier's performance and prioritize carriers for follow up interventions. This is critically important as FMCSA has the resources to inspect less than two percent of all active motor carriers each year, so the Agency must target its resources effectively. FMCSA has sufficient performance data to make an intervention prioritization assessment for nearly 200,000 of the approximately 525,000 active motor carriers for which it has safety oversight responsibilities. More importantly, analysis reveals that those same 200,000 motor carriers are involved in approximately 93 percent of the crashes reported by our State partners.

FMCSA's deployment of SMS has significantly raised safety awareness throughout the motor carrier industry. In calendar year 2011, the public website that provides a motor carrier's status in the SMS prioritization system hosted nearly 30 million user sessions, up from 4 million user sessions under the prior public SafeStat system in calendar year 2010. FMCSA continues to receive feedback that this increased awareness and transparency has raised the status of safety within corporate cultures and we are seeing this increased awareness in improved safety compliance and performance data. For example, violations per roadside inspection were down by 8 percent in 2011, and driver violations per inspection were down by 12 percent. This is the most dramatic improvement in violation rates in the last 10 years.

Additionally, the FRA rail-safety oversight framework relies on inspections to ensure railroads comply with federal safety regulations. FRA inspects railroad infrastructure and operations, identifies safety defects, and may, if warranted, cite the railroads for violations of federal safety regulations. FRA has developed and uses a risk-based approach to direct these inspection efforts. Like FMCSA, FRA inspectors are able to inspect just a small number of rail operations annually, and the agency estimates it inspects less than 1 percent of the railroad activities covered in regulation. As a result, railroads have the primary responsibility for safety of the railroad system. FRA has two tools to help direct its inspection efforts -- the National Inspection Plan (NIP) and the Staffing Allocation Model (SAM). The NIP process uses past accident and other data to target FRA's inspection activities, and the SAM estimates the best allocation of the different types of inspectors across FRA regions in order to minimize damage and casualties from rail accidents. The FRA has also implemented a risk based inspection program for tank car facility inspections. Risk scores are assigned to tank car facilities based on performance history and type of tank car serviced.

Further, FRA requires rail operators to provide monthly reports on all accidents and incidents resulting in injury or death to an individual or damage to equipment or a roadbed arising from the carrier's operation. This information is made available online and includes overall safety trends and searchable queries that provide specific information on exact location of incident, casualties, damage, cause of incident, and other operational data of the rail environment.

FTA maintains a National Transit Database for the public that contains summary information on the number of safety incidents such as collisions, fires, derailments, as well as security incidents that have occurred in a fixed number of categories. In addition, to ensure proper accountability, a transit agency's chief executive officer must also certify on an annual basis the accuracy of the safety and security data previously reported by the transit agency.

In nearly all of these examples, publicly available safety performance data is key to embracing a culture of safety accountability, providing transparent oversight and regulation, and ensuring that collective efforts are properly aimed at real risks based on actual data. PHMSA, FMCSA, FRA, and FTA provide specific safety data on publicly available websites.

Together, these efforts are designed to ensure that safety management and regulatory decisions are objective, data-driven and transparent to the public, decision-makers, field personnel, and executive management alike. This transparency and accountability serves as a cornerstone for achieving tangible and measurable safety improvements across many different modes of transportation.

Conclusion

The Department has made great strides to implement data-driven decision-making and performance-based standards where possible, while recognizing that design standards are still useful in certain circumstances. The Department is committed to continuing its efforts to facilitate industry technological innovations while still exercising proper safety oversight through thoughtful development and implementation of performance-based standards, and data-driven decision-making to reduce risk, maximize outcomes, increase system efficiency, and above all, maintain the absolute highest levels of safety for our transportation system.

Madame Chairman, Ranking Member, Members of the Subcommittee, thank you again for the opportunity to testify before you today. I stand ready to answer your questions.

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