

**Statement of the Honorable Christopher A. Hart
Vice Chairman, National Transportation Safety Board
Before the
Subcommittee on Surface Transportation and Merchant Marine
Infrastructure, Safety, and Security
Committee on Commerce, Science, and Transportation
United States Senate
Hearing on
Federal Motor Carrier Safety Administration Reauthorization
July 21, 2011**

Good morning, Chairman Lautenberg, Ranking Member Wicker, 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 charged by Congress to investigate major transportation accidents to determine their probable cause and make recommendations to prevent similar accidents from happening again. Unfortunately, our highway investigators have been quite busy with a number of major highway tragedies. Less than a month ago, on June 24th, a truck tractor hauling two empty dump trailers collided with an Amtrak train near Miriam, Nevada, resulting in the deaths of the truck driver, a train crewmember, and four train passengers.

In another accident, on May 31st, a motorcoach ran off the road and overturned on I-95 near Doswell, Virginia, causing four fatalities and numerous injuries. This accident closely followed three similar motorcoach accidents that occurred in March. In the first of these, during the early morning hours of March 12th, a motorcoach traveling southbound on I-95 toward New York City struck a guardrail, swerved, and rolled over on its side, cutting the bus in half as it struck a signpost. Fifteen people were killed in this accident and the other 18 occupants were injured. Within 3 weeks of that accident, two other motorcoach accidents occurred: one in East Brunswick, New Jersey, on March 14th that killed two, and one in Littleton, New Hampshire, on March 21st that injured all 25 occupants.

The NTSB has also investigated highway accidents involving large trucks. In June 2009 in Miami, Oklahoma, the fatigued driver of a tractor-semitrailer failed to stop for a line of vehicles that had slowed and stopped behind a minor traffic accident, causing a multivehicle collision that killed 10 and injured 6. Just four months later, in October 2009, a truck with an 11,600-gallon cargo tank carrying liquefied petroleum gas (LPG) struck a guardrail while traveling south on Interstate 69 in Indianapolis, Indiana, resulting in the release of the LPG,

which vaporized and ignited. The ensuing fires involved eight other vehicles and injured at least five people.

In an effort to learn more about the issues specific to truck and bus safety, NTSB hosted a 2-day Truck and Bus Safety forum in May at which many open recommendations and their underlying safety issues were discussed by stakeholders from the U. S. Department of Transportation (DOT), safety advocates, and the motor carrier industry. Some of the safety issues examined included

- Carrier oversight and the determination of carrier safety fitness by Federal, state, and industry organizations;
- Aspects of carrier operations, including electronic onboard recorders, hours of service, safety culture, vehicle size and weight, and operating models;
- Training and licensing of commercial drivers, including commercial learner's permits, employer notification systems, graduated licensing, and data collection;
- Driver safety;
- Driver health and wellness programs and medical oversight for interstate commercial drivers;
- Enhanced vehicle technologies, including electronic stability control and collision avoidance systems;
- Advances in crash mitigation, such as passenger restraints, vehicle crashworthiness, vehicle compatibility, and highway barrier systems.

Although the NTSB can investigate only a fraction of the tens of thousands of highway accidents that occur, we have made hundreds of recommendations over our 42-year history to improve the safety of highway transportation. We currently have 166 open highway safety recommendations issued to the DOT, the National Highway Traffic Safety Administration (NHTSA), the FMCSA, the Federal Highway Administration (FHWA), the Pipeline and Hazardous Material Safety Administration (PHMSA), and the states. Fifty-five of those open recommendations are addressed to the FMCSA.

Motor Carrier Safety Oversight

Rating Methodology

The FMCSA rates the safety of motor carriers in six areas. The two most important related to safe motor carrier operations are the condition of the vehicles and the performance of the drivers. Except when found to be an "imminent hazard," operators must be found to be unsatisfactory in at least two of the six rating factors to be disqualified. In other words, they can be unsatisfactory in either the vehicle or driver areas and still be allowed to operate.

A good illustration of how this system fails to protect the traveling public occurred in 1999 when a motorcoach rolled over in Indianapolis, Indiana, killing 2 passengers and injuring 13. The accident motorcoach had only 50-percent braking efficiency, and a post-accident compliance review of the operator by the FMCSA resulted in all 10 of the carrier's vehicles being placed out of service. The company had been inspected nine times between 1987 and 1995. In 1994, even though fully 63 percent of the vehicles met the criteria for being placed out

of service, the operator received a “conditional” rating for the vehicle factors. Because all the other factors were rated “satisfactory,” the operator was given an overall rating of “satisfactory” and was thus able to continue to operate with unsafe vehicles. As a result of our investigation of this accident, the NTSB recommended that the FMCSA emphasize both of these critical elements in its compliance reviews, and that an unsatisfactory rating in *either* the vehicle area or the driver area should disqualify the operator.¹ To emphasize our concern over this issue, we added this recommendation to our Most Wanted List in 2000.

In years following, we investigated additional motorcoach accidents that involved the same issue: a 5-fatality motor coach accident in Victor, New York, in 2002; a 23-fatality motorcoach fire near Wilmer, Texas, in 2005; a 17-fatality motorcoach accident in Atlanta, Georgia, in 2007; and a motorcoach rollover accident in Victoria, Texas, in 2008. FMCSA says these concerns will be addressed with full implementation of its Compliance, Safety and Accountability (CSA) program. However, to date, action that would satisfy this recommendation has not been completed.

New Entrants and Reincarnated Motor Carriers

In 2002, the NTSB investigated an accident involving a tractor-semitrailer collision with a Greyhound bus in Loraine, Texas, which resulted in three deaths. Our investigation revealed that, when the trucking company owner submitted his application, he lied about his knowledge of regulations and his systems to comply with the regulations, and he failed to disclose a drug conviction for possession of large amounts of marijuana the year prior to his application. The owner also failed to maintain any records on his drivers or vehicles, to have a drug and alcohol program, and to conduct background checks of his drivers. Further, he dispatched the accident driver knowing that the driver had neither a commercial driver’s license nor a medical certificate.

At that time, the owner of a truck or bus company needed merely to fill out an online form and pay a small fee to receive operating authority from the FMCSA and become a motor carrier. Further, the FMCSA conducted essentially no review or followup of new entrant motor carriers.

As a result, the NTSB recommended that the FMCSA require new motor carriers to demonstrate their safety fitness *prior* to obtaining new entrant operating authority.² In response to this recommendation, the FMCSA developed the New Applicant Screening Program, under which a new motor carrier operating in interstate commerce is subject to an 18-month safety monitoring period and receives a safety audit sometime after its first 3 months of operation but before it completes the 18-month monitoring period.

In 2008, the FMCSA began its New Entrant Safety Assurance Program, under which the agency identified 16 regulations that constitute essential, basic safety management controls necessary in interstate commerce. It made a carrier’s failure to comply with any of these 16 regulations an automatic failure of the safety audit. Additionally, if certain violations are discovered during a roadside inspection, the new entrant is subject to expedited actions to correct these deficiencies.

Unfortunately, unscrupulous motor carriers still use the new entrant program to evade an

enforcement action, or an out-of-service order, by going out of business and then reincarnating themselves as if they were a brand new motor carrier. The NTSB found that the motorcoach operator involved in the Sherman, Texas, accident had engaged in this subterfuge. After losing its authority to operate because of an unsatisfactory compliance review rating, the operator subsequently applied for new operating authority, as a new entrant, under a new name. The NTSB concluded that the FMCSA's processes were inadequate to identify the operator as a company that was simply evading enforcement action. Thus, we recommended that the FMCSA evaluate the effectiveness of its New Applicant Screening Program.³

We found additional deficiencies with the FMCSA's new entrant program during our 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 into a new operator shortly after the accident. As a result, the NTSB issued recommendations to the FMCSA that asked the agency to develop methods to identify reincarnated carriers and seek authority to deny or revoke their operating authority.⁴ 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 a September 2, 2009, letter to the Acting Deputy Administrator of FMCSA.

Drivers and Fatigue

In the 1990s, the NTSB conducted two safety studies of commercial truck accidents⁵ and found that fatigue was the most frequently cited probable cause or factor in investigated crashes that had been fatal to the driver. Based on these studies, the NTSB recommended that the FMCSA use science-based principles to revise the hours-of-service regulations for commercial drivers, ensure that the rule would enable drivers to obtain at least 8 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 proposing to change the hours-of-service rule for truck drivers, but this proposed rule does not apply to passenger carriers. The NTSB supports those provisions that are scientifically based and would reduce continuous duty or driving time, encourage the taking of breaks, promote nighttime sleep, and foster scheduling patterns that are predictable and consistent with the normal human diurnal circadian rhythm. However, we are opposed to providing exceptions for buses, motorcoaches, and other groups because of the potential increased risk such exceptions pose to the passengers and the driving public.

Of course, no hours-of-service rule is adequate unless it is enforceable. Since 1977, the NTSB has advocated the use of electronic on-board recorders (EOBRs) to allow better monitoring of hours of service and driver fatigue. Again in 2007, the NTSB asked the FMCSA to require EOBRs for hours-of-service monitoring for all interstate commercial carriers, following our investigation of a tractor-trailer accident that had occurred in Chelsea, Michigan.⁶ The NTSB believes that the FMCSA's April 2010 final rule on EOBRs did not adequately address this safety issue, and we are encouraged that the FMCSA's new NPRM, issued in January 2011, corrects many of the inadequacies and expands the scope of the new rule to cover most carriers, as originally recommended by the NTSB.

In addressing the issue of fatigue, hours-of-service regulations are important, and tamperproof EOBRs will help enforce those rules. But fatigue management is another critical strategy. In 2008, following three fatigue-related bus accidents that occurred in Osseo, Wisconsin; Lake Butler, Florida; and Turrell, Arizona; in which a total of 27 people died and 60 were injured, the NTSB asked the FMCSA to develop a plan to deploy technologies in commercial vehicles to reduce fatigue related accidents⁷ and to develop a methodology to assess the effectiveness of the fatigue management plans implemented by motor carriers.⁸ The Miami, Oklahoma, accident, which involved a fatigued truck driver, prompted the NTSB to reiterate these recommendations and make an additional recommendation to require all motor carriers to adopt a fatigue management program.⁹

A problematic and often undiagnosed sleep disorder that can exacerbate fatigue is obstructive sleep apnea (OSA). The NTSB has investigated several accidents in which OSA contributed to the fatigue of the driver, pilot, mariner, or train operator. As a result, the NTSB issued recommendations to the FMCSA in October 2009 addressing this safety problem. In particular, the NTSB recommended that the FMCSA (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,¹⁰ and (2) provide guidance for commercial drivers, employers, and physicians about identifying and treating individuals at high risk of OSA.¹¹ The NTSB is aware that the FMCSA continues to address this issue, consulting the expertise of various medical and industry groups, as well as its own Medical Review Board, to better understand OSA and its risks in order to develop appropriate guidance for medical examiners, motor carriers, and CDL drivers.

Another problem for operators is overlooking or not detecting serious preexisting medical conditions in their drivers. The NTSB has seen this issue in many accident investigations, the most tragic example of which was the 1999 Mother's Day motorcoach accident in New Orleans, Louisiana. A motorcoach driver lost consciousness while driving on an interstate highway and crashed into an embankment, killing 22 passengers and injuring 21. At the time of the accident, the driver suffered from multiple previously known, serious medical conditions, including kidney failure and congestive heart failure, and he was receiving intravenous therapy for 3 to 4 hours, 6 days a week.

Although the FMCSA has taken important steps to address medical issues, including publishing a final rule on merging the commercial driver's license with the medical certificate, much still remains to be done. For example, the FMCSA needs to ensure that medical certification regulations are updated periodically¹² and examiners both are qualified and know what to look for when conducting physical exams.¹³

FMCSA has published an NPRM proposing to create a national registry of certified medical examiners. We believe that the proposed registry needs to include a tracking mechanism for driver medical examinations.¹⁴ Such a registry and mechanism would reduce the current practice of drivers "doctor shopping" to find one who will sign their medical forms. Likewise, a second level of review is necessary to identify and correct the inappropriate issuance of medical certification.¹⁵ The FMCSA must establish a system for reporting medical conditions

that develop between examinations.¹⁶ Finally, the FMCSA needs to develop a system that records all positive drug and alcohol test results and refusal determinations, and require prospective employers and certifying authorities to query the system before making hiring decisions.¹⁷

Also of concern is the lack of information available to commercial drivers about the side effects and interactions of various drugs, and the impact these drugs may have on driving ability. Such interactions can present serious problems for drivers with diagnosed medical conditions who are being treated with prescription or over-the-counter medications. For example, in 1998 a motorcoach driver and six passengers were killed when the driver drove into the back of a parked tractor-trailer near Burnt Cabins, Pennsylvania. The NTSB found that the accident had been caused, in part, by the driver's use of an over-the-counter antihistamine, which negatively affected his alertness, performance, and judgment. As a result, the NTSB recommended that FMCSA help drivers understand which medications are appropriate for use when driving,¹⁸ provide guidance to drivers on specific medications that may be hazardous,¹⁹ ensure that drivers are aware of the hazards of using specific medications,²⁰ and establish toxicological testing requirements.²¹

The Miami, Oklahoma, accident investigation raised two other interesting aspects of fatigue-related accidents. First, because fatigue is very difficult to identify as a causal factor, fatigue-related accidents are likely underreported in accident statistics: There is no "blood test" for fatigue, as there is for alcohol. Second, motor carriers are increasingly installing video cameras that capture images both outside and inside the vehicle. These cameras are not only documenting drivers falling asleep, they are also documenting a number of unsafe driver behaviors and distractions. More importantly, some motor carriers are increasingly using these cameras as a training tool to coach their drivers about safe driving habits. In fact, the NTSB found that some companies have seen reductions in accidents by about 30 percent to as much as 50 percent when using these cameras as a coaching tool.

Truck and bus driving are two occupations where it is nearly impossible for a supervisor to directly observe and supervise an employee's behavior. Operators of trucks and buses have no copilots, additional engineers, or conductors that pilots and train engineers have. Therefore, to help prevent future fatigue accidents like the one that occurred in Miami, Oklahoma, or similar accidents involving bad driver behavior, the NTSB recommends the installation of video event recorders in commercial vehicles²² and asks that motor carriers be required to use these tools to improve driver behavior.²³

Cell Phone Use

The NTSB issued its first recommendation about cell phone use by a commercial driver in 2004, following an accident in Alexandria, Virginia, in which an experienced motorcoach driver, engaged in a heated conversation on his hands-free cell phone, failed to move to the center lane to avoid striking the underside of an arched stone bridge on the George Washington Memorial Parkway. Our investigation found that the driver had been familiar with the route and had received numerous cues to change lanes at the appropriate time to have enough clearance for the height of the bus. In fact, not only was the driver familiar with the road, but he also was following another bus that had appropriately moved to the center lane. Yet, this driver did not

notice the well-marked signage or any other cues as he approached the arched stone bridge. The accident was clearly caused by this driver's cognitive distraction, caused by his use of a hands-free cell phone.

The NTSB recommended that the FMCSA²⁴ and 50 states²⁵ enact laws to prohibit cell phone use by commercial drivers while driving passenger-carrying commercial vehicles or school buses. We also recommended that motorcoach associations, school bus organizations, and unions develop formal policies to prohibit cell phone use by commercial drivers, except in emergencies.²⁶ Unfortunately, the current FMCSA NPRM, issued in December 2010, proposes to limit cell phone restrictions to only hand-held devices and does not address the cognitive distraction posed by the use of hands-free devices.

Vehicles

The NTSB has also taken issue with the FMCSA's oversight of vehicle inspections. Following the eight-fatality Tallulah, Louisiana,²⁷ motorcoach accident and the 17-fatality Sherman, Texas,²⁸ motorcoach accident, the NTSB recommended that the FMCSA provide adequate oversight of private inspection garages. However, these recommendations remain open.

In accidents involving a school bus in Mountainburg, Arizona, and another involving a dump truck in Glen Rock, Pennsylvania, the NTSB found that the FMCSA lacked adequate oversight of pre-trip brake inspections²⁹ and oversight of the qualifications of brake inspectors,³⁰ we also found a need for formal training of these inspectors.³¹ The Glen Rock, Pennsylvania, accident prompted the NTSB recommend in 2006 that the FMCSA require drivers to demonstrate proficiency in air-braked vehicles and to understand the dangers of adjusting automatic slack adjusters.³²

The NTSB has also found problems with commercial vehicle tires. For example, some tires have a speed restriction because they are not meant for highway speeds. If a speed-restricted tire is used in service at speeds above 55 mph for extended periods, a catastrophic failure can result. Although the tires did not cause the motorcoach accident in Tallulah, LA, the inspection process had never identified the speed-restricted tires installed on this vehicle, even though it was being operated on major highways. The NTSB made recommendations to correct this deficiency.³³

Following the Sherman, Texas, motorcoach accident, which had been caused by low air pressure on one of the front tires, the NTSB found that even small reductions in air pressure can cause commercial tires to be overloaded, to overheat, and to fail. This potential overloading problem is especially true for the front tires of motorcoaches where, even with proper air pressure, these tires may be close to their maximum load rating. Therefore, the NTSB made recommendations to NHTSA and the FMCSA to require tire pressure monitoring systems³⁴ and to require commercial drivers to check their tire pressure with a gauge.³⁵

Illegal Motorcoaches

The NTSB discovered another oversight issue as a result of the motorcoach accident in

Victoria, Texas. This motorcoach had been imported from Mexico, and it repeatedly crossed the border into Texas. It should never have been allowed into the United States because it was not built to meet NHTSA's *Federal Motor Vehicle Safety Standards* (FMVSS). Therefore, the NTSB made several recommendations to the FMCSA and NHTSA to develop a database of FMVSS-compliant buses³⁶ and verify that operators are using FMVSS-compliant vehicles.³⁷ The NTSB also recommended that the FMCSA train law enforcement to detect non-FMVSS-compliant vehicles,³⁸ and to obtain the authority to put operators out of service if they use such illegal vehicles.³⁹

Closing

The safety issues and accidents discussed today are a reminder that there is much to be done to improve the safety of commercial highway operations. Accidents—although often tragic and costly— provide a unique opportunity to identify real world issues and to learn from our mistakes. Frustrating to the NTSB is that many of the issues discussed today have been identified as causal to truck and bus accidents for a number of years, yet NTSB investigators continue to see these factors again and again. Transportation safety is too important for the well-being of our citizens, our industry, and our economy to continue to repeat past mistakes. We need to do better.

¹ **H-99-6.** To FMCSA: Change the safety fitness rating methodology so that adverse vehicle or driver performance based data alone are sufficient to result in an overall unsatisfactory rating for a carrier.

² **H-03-2.** To FMCSA: Require all new motor carriers seeking operating authority to demonstrate their safety fitness prior to obtaining new entrant operating authority by, at a minimum: (1) passing an examination demonstrating their knowledge of the Federal Motor Carrier Safety Regulations; (2) submitting a comprehensive plan documenting that the motor carrier has management systems in place to ensure compliance with the Federal Motor Carrier Safety Regulations; and (3) passing a Federal Motor Carrier Safety Administration safety audit, including vehicle inspections.

³ **H-09-21.** To FMCSA: To Develop an evaluation component to determine the effectiveness of its New Applicant Screening Program

⁴ **H-09-34.** To FMCSA: Seek statutory authority to deny or revoke operating authority for commercial interstate motor carriers found to have applications for operating authority in which the applicant failed to disclose any prior operating relationship with another motor carrier, operating as another motor carrier, or being previously assigned a U.S. Department of Transportation number.

H-09-35. To FMCSA: Apply the evasion detection algorithm process against all interstate passenger carriers that obtained Federal Motor Carrier Safety Administration operating authority, after the New Entrant Safety Assurance Program began in 2003 but before the program began vetting those carriers, to verify that those new entrant carriers do not have a concealed history of poor safety management controls because they were able to reenter interstate commerce undetected as reincarnated carriers.

H-09-36. To FMCSA: Establish a requirement to review all passenger carrier lease agreements during new entrant safety audits and compliance reviews to identify and take action against carriers that have lease agreements that result in a loss of operational control by the certificate holder.

⁵ (a) *Fatigue, Alcohol, Drugs, and Medical Factors in Fatal-to-the-Driver Heavy Truck Crashes*, Safety Study NTSB/SS-90/01 (Washington, DC: NTSB, 1990); (b) *Factors that Affect Fatigue in Heavy Truck Accidents*, Safety Study NTSB/SS-95-01 (Washington, DC: NTSB, 1995).

⁶ **H-07-41.** To FMCSA: Require all interstate commercial vehicle carriers to use electronic on-board recorders for hours of service.

H-07-42. To FMCSA: As an interim measure, until industry-wide use of recorders is mandated, prevent log tampering by requiring motor carriers to create audit control systems for their paper logs.

⁷ **H-08-13.** to FMCSA: to develop and implement a plan to deploy technologies in commercial vehicles to reduce the occurrence of fatigue-related accidents.

⁸ **H-08-14.** To FMCSA: to develop and use a methodology that will continually assess the effectiveness of the fatigue management plans implemented by motor carriers

⁹ **H-10-9.** To FMCSA: Require all motor carriers to adopt a fatigue management program based on the North American Fatigue Management Program guidelines for the management of fatigue in a motor carrier operating environment.

¹⁰ **H-09-15.** To FMCSA: Implement a program to identify commercial drivers at high risk for obstructive sleep apnea and require that those drivers provide evidence through the medical certification process of having been appropriately evaluated and, if treatment is needed, effectively treated for that disorder before being granted unrestricted medical certification

¹¹ **H-09-16.** To FMCSA: Develop and disseminate guidance for commercial drivers, employers, and physicians regarding the identification and treatment of individuals at high risk of obstructive sleep apnea (OSA), emphasizing that drivers who have OSA that is effectively treated are routinely approved for continued medical certification.

¹² **H-01-19.** To FMCSA: Ensure that medical certification regulations are updated periodically to permit trained examiners to clearly determine whether drivers with common medical conditions should be issued a medical certificate.

¹³ **H-01-17.** To FMCSA: Ensure that individuals performing medical examinations for drivers are qualified to do so and are educated about occupational issues for drivers.

H-01-20. To FMCSA: Ensure that individuals performing examinations have specific guidance and a readily identifiable source of information for questions on such examinations.

¹⁴ **H-01-18.** To FMCSA: Develop a tracking mechanism be established that ensures that every prior application by an individual for medical certification is recorded and reviewed.

¹⁵ **H-01-21.** To FMCSA: Develop a review process prevents, or identifies and corrects, the inappropriate issuance of medical certification.

¹⁶ **H-01-24.** To FMCSA: Develop mechanisms for reporting medical conditions to the medical certification and reviewing authority and for evaluating these conditions between medical certification exams; individuals, health care providers, and employers are aware of these mechanisms.

¹⁷ **H-01-25.** To FMCSA: Develop a system that records all positive drug and alcohol test results and refusal determinations that are conducted under the U.S. Department of Transportation testing requirements, require prospective employers to query the system before making a hiring decision, and require certifying authorities to query the system before making a certification decision.

¹⁸ **H-00-12.** To FMCSA: Establish, with assistance from experts on the effects of pharmacological agents on human performance and alertness, procedures or criteria by which highway vehicle operators who medically require substances not on the U.S. Dept. of Transportation's list of approved medications may be allowed, when appropriate, to use those medications when driving.

¹⁹ **H-00-13.** To FMCSA: Develop, then periodically publish, an easy-to-understand source of information for highway vehicle operators on the hazards of using specific medications when driving.

²⁰ **H-00-14.** To FMCSA: Establish and implement an educational program targeting highway vehicle operators that, at a minimum, ensures that all operators are aware of the source of information described in Safety Recommendation H-00-13 regarding the hazards of using specific medications when driving.

²¹ **H-00-15.** To FMCSA: Establish, in coordination with the U.S. Department of Transportation, the Federal Railroad Administration, the Federal Transit Administration, and the U.S. Coast Guard, comprehensive toxicological testing requirements for an appropriate sample of fatal highway, railroad, transit, and marine accidents to ensure the identification of the role played by common prescription and over-the-counter medications. Review and analyze the results of such testing at intervals not to exceed every 5 years.

²² **H-10-10.** To FMCSA: Require all heavy commercial vehicles to be equipped with video event recorders that capture data in connection with the driver and the outside environment and roadway in the event of a crash or sudden deceleration event. The device should create recordings that are easily accessible for review when conducting efficiency testing and system-wide performance-monitoring programs.

²³ **H-10-11.** To FMCSA: Require motor carriers to review and use video event recorder information in conjunction with other performance data to verify that driver actions are in accordance with company and regulatory rules and procedures essential to safety.

²⁴ **H-06-27.** To FMCSA: Publish regulations prohibiting cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies.

²⁵ **H-06-28.** The National Transportation Safety Board makes the following recommendation to the 50 States and the District of Columbia: Enact legislation to prohibit cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies.

²⁶ **H-06-29.** The National Transportation Safety Board makes the following recommendation to motorcoach industry, public bus, and school bus associations and unions: Develop formal policies prohibiting cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies.

²⁷ **H-05-04.** To FMCSA: Conduct a study on the safety effectiveness of the self-inspection and certification process used by motor carriers to comply with annual vehicle inspection requirements and take corrective action, as necessary.

²⁸ **H-09-20.** To FMCSA: Require those states that allow private garages to conduct Federal Motor Carrier Safety Administration inspections of commercial motor vehicles, to have a quality assurance and oversight program that evaluates the effectiveness and thoroughness of those inspections.

²⁹ **H-02-15.** To FMCSA: Revise 49 Code of Federal Regulations 396.13, Driver Inspection, to require minimum pre-trip inspection procedures for determining brake adjustment.

³⁰ **H-02-17.** To FMCSA: During compliance reviews, rate companies as unsatisfactory in the vehicle factor category if the mechanics and drivers responsible for maintaining brake systems are not qualified brake inspectors.

³¹ **H-02-18.** To FMCSA: Revise 49 Code of Federal Regulations 396.25, Qualifications of Brake Inspectors, to require certification after testing as a prerequisite for qualification and specify, at a minimum, formal training in brake maintenance and inspection.

³² **H-06-02.** To FMCSA: Require drivers of commercial vehicles that weigh less than 26,000 pounds and are equipped with air brakes to undergo training and testing to demonstrate proficiency in the inspection and operation of air-braked vehicles; the training should emphasize that manually adjusting automatic slack adjusters is dangerous and should not be done, except during installation or in an emergency to move the vehicle to a repair facility.

³³ **H-05-03.** To FMCSA: Revise the Federal Motor Carrier Safety Regulations Appendix G to Subchapter B, Minimum Periodic Inspection Standards, Part 10: Tires, Sections A(5) and B(7), to include inspection criteria and specific language to address a tire's speed rating to ensure that it is appropriate for a vehicles intended use.

³⁴ **H-09-22.** To NHTSA: Require all new motor vehicles weighing over 10,000 pounds to be equipped with direct tire pressure monitoring systems to inform drivers of the actual tire pressures on their vehicles.

³⁵ **H-09-19.** To FMCSA: Require that tire pressure be checked with a tire pressure gauge during pretrip inspections, vehicle inspections, and roadside inspections of motor vehicles.

³⁶ **H-09-37 & H-09-30.** To FMCSA and NHTSA, respectively: Assist the National Highway Traffic Safety Administration in developing a Web-based database of FMVSS-compliant passenger-carrying commercial motor vehicles that can be utilized by federal, state, and local enforcement inspection personnel to identify non-FMVSS-compliant passenger-carrying commercial motor vehicles so that these vehicles (other than exempted vehicles) are placed out of service and cease operating in the United States. Implement a process to periodically update this database.

H-09-38. To FMCSA: Require that federal and state inspectors utilize the database requested in Safety Recommendation H-09-37 during both roadside and compliance review inspections of passenger-carrying commercial motor vehicles to identify and place out of service non-FMVSS-compliant vehicles.

H-09-31. To NHTSA: When the database requested in Safety Recommendation H-09-30 is completed, make the database known and accessible to state vehicle registration agencies and to Federal, state, and local enforcement inspection personnel for their use during roadside inspections and compliance reviews to identify non-FMVSS-compliant passenger-carrying commercial motor vehicles.

³⁷ **H-09-40.** To FMCSA: Require that passenger motor carriers certify on their OP-1(P) forms (Application for Motor Passenger Carrier Authority) and initial MCS-150 form (Motor Carrier Identification Report [Application for USDOT Number]) and subsequent required biennial submissions that all vehicles operated, owned, or leased per trip or per term met the FMVSSs in effect at the time of manufacture.

³⁸ **H-09-39.** To FMCSA: Institute a requirement for federal and state enforcement officials to obtain training on a procedure to physically inspect passenger-carrying commercial motor vehicles for an FMVSS compliance label, and work with the Commercial Vehicle Safety Alliance to develop and provide this training.

³⁹ **H-09-41.** To FMCSA: Seek statutory authority to suspend, revoke, or withdraw a motor carrier's operating authority upon discovering the carrier is operating any non-FMVSS-compliant passenger-carrying commercial motor vehicles, a violation of the FMVSS-compliant certification requested in Safety Recommendation H-09-40.