

# National Transportation Safety Board

Office of the Chair

Washington, DC 20594



May 16, 2023

Docket Management Facility, M-30  
US Department of Transportation  
1200 New Jersey Avenue SE  
Room W12-140  
West Building Ground Floor  
Washington, DC 20590

Re: Docket Number FMCSA-2022-0066

Dear Sir or Madam:

The National Transportation Safety Board (NTSB) has reviewed the Federal Motor Carrier Safety Administration (FMCSA) request for comments (RFC) titled "Revised Carrier Safety Measurement System," published at 88 *Federal Register* 9954 on February 15, 2023. The FMCSA requests comment on the proposed changes to the agency's Safety Measurement System (SMS) to identify motor carriers for safety interventions. The SMS quantifies the safety performance of motor carriers using data in the FMCSA's motor carrier database, the Motor Carrier Management Information System (MCMIS). The database includes violations found during inspections, traffic enforcement, and investigations, as well as crash and motor carrier census data. The FMCSA is proposing the following changes to the SMS: (1) reorganized and updated safety categories; (2) consolidated violations; (3) simplified violation severity weights; (4) use of proportionate percentiles to rank carriers within safety event groups; (5) improved intervention thresholds; (6) greater focus on recent violations; and (7) an updated utilization factor.<sup>1</sup> Input is requested on other changes that should be considered.

The NTSB supports a risk-based intervention approach to identify motor carriers that pose the greatest risk to the motoring public. With fewer than 400 field operations personnel assigned to conduct safety inspections, the FMCSA regulates a

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<sup>1</sup> There are currently seven safety categories, referred to as Behavior Analysis and Safety Improvement Categories (BASICS), reflecting types of regulatory violations: (1) Unsafe Driving, (2) Hours of Service (HOS) Compliance, (3) Driver Fitness, (4) Controlled Substances and Alcohol, (5) Vehicle Maintenance, (6) Hazardous Materials Compliance (if applicable), and (7) Crash Indicator. A carrier's rating for each BASIC depends on its number of adverse safety events, the severity of its violations or crashes, and when the adverse safety events occurred. Carriers are compared to a peer group of other carriers with a similar number of inspections using a percentile rating of 0 to 100, with the 100th percentile indicating the worst performance. Intervention threshold levels for each BASIC depend on the inherent risk of the category, as well as the carrier type. When a carrier is above a threshold level in a BASIC, it is considered to be in an "alert" status.

diverse industry consisting of over 750,000 active interstate motor carriers and intrastate hazardous material motor carriers.<sup>2</sup> Consequently, we appreciate that the FMCSA must employ a collaborative, transparent, and data-driven approach to allocate limited resources to address the highest-risk carriers. The NTSB commends the FMCSA for taking a collaborative approach to improving its data collection and use by working with the National Research Council of the National Academy of Sciences (NAS) and other stakeholders to develop and test various statistical models to best identify motor carriers for safety interventions. Improvements to the means of collecting and using data to better identify high-risk carriers is a welcome step.

But the NTSB must stress that simply identifying the highest-risk carriers will not be enough. To be effective in reducing crashes, the FMCSA must combine its data-based targeting efforts with effective inspection of high-risk motor carriers, followed by strong enforcement action. Unfortunately, our investigations continue to identify shortfalls in the FMCSA's follow-through on the SMS data and in the oversight of truck and bus companies.

Our response to this RFC will first provide an overview of our investigation history and recommendations related to the FMCSA's Compliance, Safety, Accountability (CSA) initiatives.<sup>3</sup> This review will highlight many instances in which the FMCSA had the data to identify a high-risk carrier well before a crash took place and yet did not remove that carrier from operation. Then, we will provide a brief discussion of some of the proposed changes to the SMS and our views on these changes.

### **NTSB Experience Shows That Stronger Enforcement is Essential**

The NTSB has a long history of making recommendations to improve the safety of the motor carrier industry. From our investigations, we have found that the two most important areas related to safe motor carrier operations are the performance of the drivers and the condition of the vehicles. The NTSB believes that the FMCSA should emphasize both of these critical elements in its analysis of the SMS data and during follow-up enforcement efforts. Unfortunately, time and time again, we have found that motor carriers with serious safety problems were allowed to continue operation as a direct result of deficiencies in the FMCSA compliance review program.

Over the last 24 years, the NTSB has repeatedly issued recommendations addressing the safety deficiencies with the FMCSA's compliance review program that we found during our investigations of fatal crashes. We have had to classify many of these recommendations Closed–Unacceptable Action (or Open–Unacceptable

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<sup>2</sup> See [2022 Pocket Guide to Large Truck and Bus Statistics](#) (Washington, DC: FMCSA, December 2022). State inspectors (12,250) augment the FMCSA's resources and conduct about 95% of all inspections.

<sup>3</sup> See [CSA Compliance, Safety, Accountability \(dot.gov\)](#).

Response) because the FMCSA has never adequately addressed the underlying safety issues. The NTSB investigations discussed below demonstrate the unresolved safety issues that we continue to find in our investigations.

The NTSB's first recommendation to the newly created FMCSA regarding this issue was made in 1999 in response to a motorcoach rollover crash in Indianapolis, Indiana, where 2 passengers died and 13 were injured.<sup>4</sup> The carrier had been inspected nine times between 1987 and 1995, so it should have been obvious before the crash that it had issues with its vehicle maintenance. In 1994, even though 63 percent of the carrier's vehicles met the out-of-service criteria, the operator received a "conditional" rating for the vehicle factors. Because all of the other factors were rated "satisfactory," the carrier was given an overall rating of "satisfactory" and it was able to continue operating with unsafe vehicles. As a result of our investigation of this crash, the NTSB recommended that the FMCSA change the safety fitness rating methodology so that adverse vehicle- and driver-based data alone would be sufficient to result in an overall "unsatisfactory" rating for a motor carrier.<sup>5</sup>

On June 15, 2006, the FMCSA briefed the NTSB on the CSA 2010 initiative, which was promised to be a complete revamp of the compliance review process. At the time, the FMCSA reported that the deployment date for the new safety fitness rating methodology would be in calendar year 2010. Shortly thereafter, as part of our investigation of a 23-fatality motorcoach fire near Wilmer, Texas, we concluded that the FMCSA's current compliance review process did not effectively identify unsafe motor carriers and prevent them from operating.<sup>6</sup>

In 2008, the FMCSA launched an operational model test of the CSA program. The foundation of the CSA program is the carrier's SMS, which was designed to quantify the on-road performance of a motor carrier to prioritize enforcement resources. Since the implementation of the SMS, the NTSB has found that the FMCSA's safety measurement scores often do accurately predict serious safety deficiencies in a company's operation. Unfortunately, in many of the crashes we have investigated, the FMCSA did not provide strong and effective intervention before the crash to stop the unsafe carrier from operating.

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<sup>4</sup> See National Transportation Safety Board, *Highway Special Investigation Report: Selective Motorcoach Issues* ([NTSB/SIR-99/01](#)).

<sup>5</sup> In 2020, the NTSB classified Safety Recommendation [H-99-6](#) Closed–Unacceptable Action. In our letter to the FMCSA, we stated that "we are concerned that, 21 years after issuing this recommendation, we continue to investigate crashes that demonstrate a need for an improved safety fitness rating methodology; however, you have not revised your process of shutting down unsafe carriers. Because you have not made any progress toward addressing the recommended action, and have not indicated any viable plans to do so, Safety Recommendation H-99-6 is Closed–Unacceptable Action."

<sup>6</sup> See National Transportation Safety Board, *Motorcoach Fire on Interstate 45 During Hurricane Rita Evacuation Near Wilmer, Texas* ([NTSB/HAR-07/01](#)).

In 2011, following the NTSB's investigation of a 15-fatality motorcoach crash in New York City, New York, we recommended that the FMCSA include safety measurement rating scores in the methodology used to determine a carrier's fitness to operate.<sup>7</sup> We urged the FMCSA to move forward more expeditiously on finalizing the Safety Fitness Determination (SFD) process to help more quickly remove unsafe motor carriers and their drivers from the nation's highways.

In 2013, the NTSB investigated four commercial motor vehicle (CMV) crashes, that, together, resulted in 25 people being killed and 83 being injured. In each of the crashes, there were "red flags" before the crashes that should have triggered strong FMCSA intervention.<sup>8</sup> In each of these cases, safety investigators had visited the carriers before the crash and given them clean bills of health; however, immediately following the crash—after an NTSB review—the FMCSA found significant safety deficiencies and, in three out of the four cases, declared the carrier an imminent hazard and placed it out of service. As a result of these crash investigations, we issued two safety recommendations to the US Department of Transportation (USDOT) to conduct an internal audit of processes at the FMCSA.<sup>9</sup>

In early 2014, in response to our recommendations, the Secretary of Transportation tasked the USDOT Safety Council to oversee an independent review of the FMCSA's compliance review process. Staff from the Federal Aviation Administration led the effort and convened an expert Independent Review Team (IRT) to evaluate the FMCSA safety oversight programs and make recommendations for policy and procedure improvements.<sup>10</sup> The IRT provided its report to the USDOT Safety Council in summer 2014. In the report, the IRT acknowledged the huge task that the FMCSA faces in regulating the vast motor carrier industry but found that the compliance review process does not consistently generate the intended results. The report stated that the FMCSA must develop new approaches to increase motor carrier compliance with safety requirements.

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<sup>7</sup> See our report on the New York, New York, motorcoach crash ([NTSB/HAR-12/01](#)) and Safety Recommendation [H-12-17](#), which was classified Open–Unacceptable Response in 2020. In explaining our classification of this recommendation, we advised the FMCSA that "as we continue to investigate crashes that demonstrate a need for an improved safety fitness rating methodology, we remain concerned that your significant and continuing delay in enacting rulemaking deprives the FMCSA of the necessary tools to effectively address the safety risks posed by high-risk carriers."

<sup>8</sup> Information about these four crashes can be accessed through the NTSB public docket on our website, [www.nts.gov](#), under the following accident ID numbers: Pendleton, Oregon ([HWY13FH005](#)); San Bernardino, California ([HWY13FH007](#)); Murfreesboro, Tennessee ([HWY13FH015](#)); and Elizabethtown, Kentucky ([HWY13FH008](#)).

<sup>9</sup> See Safety Recommendations [H-13-39](#) and [-40](#), which were classified Closed–Exceeds Recommended Action in 2015 when the USDOT's independent task force completed its audit of the FMCSA's compliance review processes.

<sup>10</sup> See [Blueprint for Safety Leadership: Aligning Enforcement and Risk](#) (Washington, DC: US Department of Transportation, July 2014).

The IRT report indicated a number of promising areas for FMCSA action. Among its many findings and proposals, the IRT report stated that, to make the best use of its resources, the FMCSA must focus on high-risk carriers, as those are most likely to cause harm. It recommended that the FMCSA sharpen its priority-setting focus and improve the timeliness of investigator actions on those motor carriers representing the highest risk.

In 2016, at the conclusion of our investigation of a fatal CMV crash in Naperville, Illinois, we expressed our continued concern about the inadequacy of FMCSA efforts to address the safety deficiencies of high-risk motor carriers.<sup>11</sup> In the Naperville crash report, as well as issuing a recommendation aimed at reducing the delay between the identification of a high-risk carrier and effective intervention, the NTSB recommended that the FMCSA develop and implement a notification program to automatically send a letter to any motor carrier defined as “high risk.” We further recommended that the FMCSA send a copy of the letter to the motor carrier’s insurance provider so that both the carrier and the insurer would be prompted to take immediate steps to improve the company’s overall safety management.<sup>12</sup>

The cited crash investigations and recommendations represent some of our efforts over the past two decades to address deficiencies in the FMCSA’s compliance review program. We are hopeful that, through collaboration and continuous improvement, the FMCSA’s efforts to identify and intervene against high-risk motor carriers will result in significant reductions in CMV crashes, injuries, and fatalities. We urge the FMCSA to review our crash investigation reports and to take meaningful action to address our open safety recommendations. Moreover, given that the FMCSA has been working on CSA 2010 initiatives for well over a decade, the agency must take swift and decisive action to finalize SFD rulemaking so that a strong framework for safety is established.

### **NTSB Views on Proposed Changes to Motor Carrier SMS**

The Board has found the FMCSA’s SMS to be very effective at identifying high-risk carriers. We are pleased that the proposed SMS changes keep much of the original process in place.

**Proposed changes are promising.** Overall, the NTSB supports the FMCSA’s proposed changes to the SMS; however, as indicated by the preceding section, we believe that it is critical that the system be paired with a robust intervention and enforcement program. Through its realignment of the BASICs and intervention thresholds, the FMCSA expects that the proposed changes will significantly improve

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<sup>11</sup> See National Transportation Safety Board, *Commercial Truck Collision with Stopped Vehicles on Interstate 88, Naperville, Illinois* ([NTSB/HAR-16/01](#)).

<sup>12</sup> See Safety Recommendation [H-16-2](#), which was classified Closed–Unacceptable Action in 2017 when the FMCSA decided not to develop the recommended program to notify both the carrier and the carrier’s insurance company of a high-risk status.

the SMS, enabling it to better prioritize for intervention those carriers that pose the highest safety risk. We support this effort. We are aware that the FMCSA considered many of the changes recommended in the 2017 NAS report, titled *Improving Motor Carrier Safety Measurement*, and adopted some of the recommended changes to the SMS.<sup>13</sup> We hope and expect that the FMCSA's planned question-and-answer sessions for the industry and the public will give it important insights on how to improve the system further.

**System monitoring and continuous improvement is vital.** In the past, the FMCSA has conducted SMS effectiveness tests that have shown that the group of carriers the SMS identified for intervention in one or more BASIC had a much higher crash rate than the group of carriers not identified for intervention.<sup>14</sup> As the FMCSA incorporates the revised SMS into its operations, we encourage the agency to continue to monitor the effectiveness of the system and make improvements as necessary.

**SMS information about individual carriers must be accessible to users making safety decisions.** The NTSB has called for open and transparent reporting of safety information as a means of promoting CMV safety and of creating incentives for all carriers to improve their safety performance. The NTSB recognizes the safety benefits of making the carrier prioritization status in the SMS available to the public. For example, as part of the NTSB review of curbside motorcoach safety, we discussed the need to improve consumer access to the safety records of passenger motor carriers.<sup>15</sup> In 2015, the FMCSA restricted public access to SMS data. Section 5223 of the Fixing America's Surface Transportation Act (FAST Act) of 2015 required the FMCSA to remove all relative percentiles for each BASIC developed under the CSA program until a review by the USDOT Inspector General was completed.<sup>16</sup> Additionally, the FMCSA was required to address the issues raised in a Government Accountability Office (GAO) report titled *Modifying the Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers*, dated February 2014.<sup>17</sup> Within the RFC, the FMCSA outlined actions it has taken to address USDOT Inspector General and GAO concerns, and proposed changes to the SMS. Now that many of the data quality issues have been addressed, as part of this new initiative, we encourage the FMCSA to display SMS data publicly for all motor carriers, including relative percentile data. It is also crucial that the FMCSA provide proper

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<sup>13</sup> See [Improving Motor Carrier Safety Measurement](#) (Washington, DC: National Academies of Sciences, Engineering, and Medicine, 2017).

<sup>14</sup> See [Safety Measurement System Methodology: BASIC Prioritization Status](#) (Washington, DC: FMCSA, 2022).

<sup>15</sup> See National Transportation Safety Board, *Report on Curbside Motorcoach Safety* ([NTSB/SR-11/01](#)).

<sup>16</sup> See [Fixing America's Surface Transportation Act](#) (Public Law 114-94, December 4, 2015).

<sup>17</sup> Refer to GAO Report [GAO-14-114](#).

context to the data reported and to be responsive to stakeholder concerns about such transparency.

**System should reward Beyond Compliance carriers.** Another important component of the FAST Act was the “Beyond Compliance” provision described in section 5222 of the Act. The provision requires that the FMCSA develop a method to recognize and reward performance by motor carriers that implement safety processes that exceed federal safety requirements (such as advanced safety equipment, enhanced driver fitness measures, fleet safety management tools, etc.). The NTSB supports this provision and urges the FMCSA to incorporate into the revised CSA program a methodology that recognizes Beyond Compliance carrier performance.

### **Summary**

The NTSB appreciates the opportunity to comment on the proposed changes to the SMS. We support and encourage the FMCSA’s efforts to continue to collaborate with the motor carrier industry, drivers, enforcement personnel, safety advocates, and other stakeholders in making incremental, data-driven improvements to the system, such as those detailed in this SMS revision. However, even the best data is useless without effective enforcement. While the FMCSA is improving the SMS data through this revision, it must also redouble its enforcement efforts to stop those carriers identified as high safety risks from operating on our nation’s highways.

Sincerely,

[Original Signed]

Jennifer Homendy  
Chair