U.S. Department of Transportation
Federal Motor Carrier Safety Administration

CSA
Compliance ★ Safety ★ Accountability

PRIORITIZATION PREVIEW

New Prioritization Methodology: **Foundational Document**

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Table of Contents

List of Tables

List of Figures

Introduction

The Federal Motor Carrier Safety Administration (FMCSA) uses the Safety Measurement System (SMS), a core component of the Compliance, Safety, Accountability (CSA) program, to identify high-risk companies and operators of commercial motor vehicles (CMVs). FMCSA first announced implementation of the SMS in the Federal Register on April 9, 2010. SMS's data-driven and performance-based approach evaluates safety data from more than 3.5 million annual roadside inspections, along with investigations and crash reports, to focus resources on carriers that pose the highest risk to safety on our Nation's highways.

Because one fatal crash is too many, FMCSA continually monitors SMS for opportunities to modernize and improve the decision-making processes critical to safety and the U.S. DOT's goal of zero deaths. In 2019, FMCSA completed its Item Response Theory (IRT) study suggested by the National Academy of Sciences (NAS). During the course of this study, FMCSA identified changes the Agency could make to its prioritization methodology to better identify motor carriers for safety interventions.

These proposed enhancements to the SMS are the latest in our continuous improvement efforts to enhance safety on the Nation's roads. FMCSA will release a preview of these proposed enhancements, outlined below, and will provide notice and seek comments on the proposed changes in the Federal Register.

Overview of Proposed Changes

With input from all stakeholders—including government at all levels, industry, non-profit/advocacy, researchers, and the public—FMCSA has identified nine changes that build on the sound design of SMS. These proposed changes would make safety data easier to understand and act upon, enabling FMCSA to focus where the Agency can make the greatest safety impact, and encouraging safe, responsible behavior among motor carriers and drivers.

The increased efficiency of these changes would improve effectiveness in prioritizing carriers for intervention. This is already evident: The crash rate for carriers prioritized for safety interventions using the proposed methodology increased from 7.08 to 7.77 crashes per 100 Power Units (PUs), which is 10% higher than for carriers prioritized under SMS.

FMCSA's new prioritization methodology includes the following proposed changes, which would streamline information and improve data-driven safety decisions:

Reorganized "BASICs"

- Reorganizing the Vehicle Maintenance and Unsafe Driving Behavior Analysis and Safety Improvement Categories (BASICs), now called "safety categories," to focus on motor carriers with higher crash rates and more accurately pinpoint unsafe behaviors.

Reorganized Roadside Violations

- Reorganizing 973 roadside violations into 116 violation groups of similar safety behaviors to prevent inconsistencies that occur when multiple violations are cited for a single or very similar underlying issue.

Simplified Roadside Violation Weights

- Simplifying violation severity weights to adopt a more straightforward approach.

Proportionate Percentiles

- Eliminating large percentile changes that occur for non-safety-related reasons to more precisely indicate how a motor carrier's performance is trending from month to month.

New Segmentation: Driver Fitness and Hazardous Materials (HM) Compliance Safety Categories

- Extending segmentation of carriers by operation and vehicle type to additional safety categories to improve carrier-to-carrier comparisons.

Improved Intervention Thresholds to focus on carriers with high crash rates:

- Adjusting the Intervention Thresholds for the HM Compliance and Driver Fitness safety categories to focus on carriers with the highest crash risk.

Increased Focus on Recent Violations

- Only prioritizing motor carriers with violations cited within the last 12 months to focus enforcement interventions on carriers that have recent safety issues.

Updated Utilization Factor

- More accurately accounting for the on-road exposure of motor carriers with the most Vehicle Miles Traveled (VMT) per vehicle.

Reorganized Unsafe Driving Category to Include Operating While OOS Violations

- More accurately reflecting driver-based safety problems related to disregarding Out-of-Service (OOS) Orders.

Evaluation Approach

Per FMCSA's mission the number one priority is reducing crashes, injuries, and fatalities involving large trucks and buses. Prioritization supports this mission by allowing FMCSA to focus its resources on the carriers with the greatest propensity to be involved in crashes. To evaluate the impact of the proposed changes on potential future crash reduction, FMCSA runs prioritization results for carriers for a date in the past and then observes the subsequent crash involvement of the carriers. Analysis is then conducted to quantify the extent to which there are associations between particular prioritization results and future crash rates. These future crash rates are measured in crashes per 100 PUs.

FMCSA evaluated proposed changes using the Agency's updated Effectiveness Test (ET), which leverages historical carrier data to assess each change's contribution to prioritizing carriers with safety problems for interventions. FMCSA conducted the ET using a three-step process:

1. Perform a test run of new prioritization methodology and calculate carrier percentiles using historical data from September 2016 to September 2018.
2. Observe each carrier's "future" crash involvement and Acute/Critical (A/C) violation rate over the 24-month period immediately following the test run of September 2018 to September 2020.
3. Examine the relationship between carrier percentile ranks in each safety category and "future" crash involvement and A/C violation rates in the post-test run time period.

To account for crash data reporting timeframes, FMCSA used the December 2020 snapshot (October 2018 to September 2020) to ensure that 24 months of crash data was available for

analysis. For the purposes of this document, “crash rate” and “crash risk” refer to the future crash rates of carriers as determined by the ET. Figure 1 below provides the timeframe used for the ET.

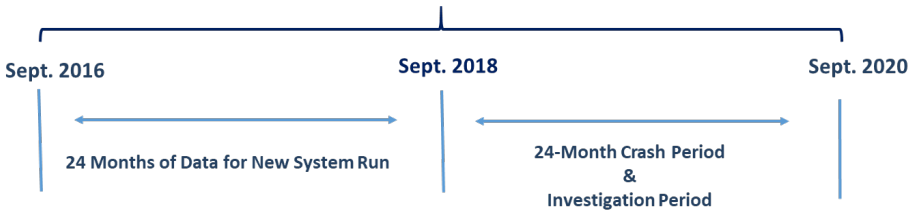

Figure 1. Timeframe for New Prioritization Methodology ET

Visit the SMS website for more information on FMCSA’s ET and to review the ET Results.[1]

In addition to the safety impacts measured with the ET, the proposed changes were guided by FMCSA’s continuing commitment to enhance the accuracy, fairness, and clarity of its prioritization system. Some highlights include:

- Making safety data easier to understand. Simplifying the analysis and display of carrier data would enable carriers to more easily identify and correct underlying safety problems—before crashes occur.
- Sharpening the focus on higher risk carriers. Streamlining processes would enable FMCSA to better identify and intervene with carriers that have a crash rate 10% higher than those prioritized under the current approach.
- Streamlining analysis and reporting. Organizing violations into two weighting levels, adjusting Intervention Thresholds, and sorting roadside violations into safety categories would reduce complexity to facilitate efficient and data-informed safety decisions.
- Refining and strengthening safety percentiles. By eliminating fluctuations in percentile results from non-safety-related causes, resources can be more acutely focused on motor carriers that pose the greatest risk to safety on the nation’s roads.
- Acknowledging and reinforcing safe practices. Carriers that have not had a roadside violation in the previous 12 months would not be prioritized based on inspection data.

Detailed Summary of Proposed Changes

Reorganized “BASICs”

Background

Through analysis performed for the IRT study, FMCSA learned that the Controlled Substances/Alcohol and Vehicle Maintenance BASICs could be reorganized to make it easier to pinpoint and address specific safety issues.[2] These BASICs were candidates for potential reorganization because they are the smallest and largest categories respectively. Vehicle Maintenance is the largest BASIC with 406 violations, ranging from those easily identifiable during a walk-around, or pre-trip inspection, to those more commonly identified by an inspector, mechanic, or other expert during a more thorough inspection.

Controlled Substances/Alcohol is the smallest BASIC with 11 violations, and these violations are also cited relatively infrequently. Table 1 demonstrates that only 0.1% of driver inspections

[1] For more information on the FMCSA’s ET visit: https://ai.fmcsa.dot.gov/SMS/Home/SMSToCrash.aspx

[2] For the purposes of this document, the term “BASICs” is used in reference to the current SMS methodology while “safety categories” refers to the proposed methodology.

contain Controlled Substances/Alcohol violations, whereas Hours-of-Service (HOS) Compliance and Unsafe Driving violations are each found in more than 10% of driver inspections. This data sparsity in the Controlled Substances/Alcohol BASIC leads to lower correlation with crash rate than most of the other BASICs.

Table 1: Frequency of Relevant Inspections with BASIC Violations

BASIC	Number of Inspections with BASIC Violations	Number of Relevant Inspections	Percent of Relevant Inspections with BASIC Violations
Unsafe Driving	491,917	4,889,906	10.1%
HOS Compliance	499,734	4,889,906	10.2%
Vehicle Maintenance	1,518,727	3,218,010	47.2%
Controlled Substances/Alcohol	6,793	4,889,906	0.1%
HM Compliance	28,023	269,563	10.4%
Driver Fitness	156,800	4,889,906	3.2%

Source: Motor Carrier Management Information System (MCMIS) September 2018 data snapshot.

Proposal

FMCSA proposes that the following safety categories be reorganized in the proposed methodology. All BASICs would be referred to as "safety categories" in the proposed methodology.

Vehicle Maintenance would be divided into two categories:

- *Vehicle Maintenance: Driver Observed* includes violations that could reasonably be observed by a driver as part of pre-trip inspection or detected by a law enforcement officer as part of a Walk-Around (Level 2) roadside inspection.
- *Vehicle Maintenance* includes all other vehicle maintenance violations, more commonly identified by a mechanic doing routine maintenance or detected by a law enforcement officer as part of a Full (Level 1) roadside inspection.

Unsafe Driving would include the following violations:

- Controlled Substances/Alcohol violations (no longer in their own standalone category). This BASIC's data sparsity inhibited this BASIC's ability to identify high crash risk carriers. But holding carriers accountable for their drivers' drug and alcohol use remains important as a means of addressing safety issues. An Exploratory Factor Analysis (EFA) demonstrated that Controlled Substances/Alcohol violations were strongly associated with the Unsafe Driving BASIC.[3] This analysis supported eliminating the Controlled Substances/Alcohol category as a standalone BASIC and grouping these violations with Unsafe Driving violations.
- All Operating while Out-of-Service (OOS) violations, regardless of which safety category violation resulted in the OOS Order. This change was studied as part of the SMS enhancements proposed in October 2016. For more information on the analysis and

[3] For more information on the analysis and approach behind this proposed reorganization, refer to page 41 of the IRT Study, "Development and Evaluation of an Item Response Theory (IRT) Model for Motor Carrier Prioritization," which will be available in the docket with the FRN for these proposed changes.

approach behind this change, see **Previously Studied Changes** and the 2016 Foundational Document.[4]

Example: "396.9(c)(2): Operating an OOS vehicle" is included in the Vehicle Maintenance BASIC in SMS but would be part of the Unsafe Driving safety category in the proposed methodology.

Figure 2 below provides an illustration of the proposed reorganization.

Figure 2. Reorganized Vehicle Maintenance and Unsafe Driving Safety Categories

Analysis Method

FMCSA conducted an EFA during the IRT study to determine potential approaches for reorganizing the Vehicle Maintenance and Controlled Substances/Alcohol safety categories. The EFA identified potential new groupings for these safety categories by highlighting statistical relationships between the violations within each safety category.

EFA results suggested that the Vehicle Maintenance safety category could be divided into two categories: 1) violations readily detectable by a driver during a pre-trip inspection, which inspired the idea for a new Vehicle Maintenance: Driver Observed safety category; and 2) all other vehicle maintenance violations. This new safety category aligns with Intermodal Equipment Provider (IEP) "Pre-Trip" designations where applicable.[5]

The Agency also used EFA to determine whether the very small set of Controlled Substances/Alcohol violations could be grouped in one of the other driver-focused safety categories, Unsafe Driving and Driver Fitness. The analysis supported grouping the violations

[4] Proposed SMS Enhancements, October 2016: https://csa.fmcsa.dot.gov/Documents/SMS-Preview-Foundational-Document.pdf

[5] A report titled, "New Prioritization System: Proposed Violation Groups," which maps the consolidation of the violations, will be available in the docket with the FRN for these proposed changes.

with Unsafe Driving because they were strongly associated with this safety category in general, and with the "reckless driving" violation.[6]

Evaluation Results

Reorganizing the Vehicle Maintenance BASIC into two safety categories would provide more specific information to help motor carriers and enforcement pinpoint unsafe driver behavior and sources of vehicle maintenance issues. Table 2 shows that although this leads to a slightly lower crash rate for prioritized carriers, the new safety categories would prioritize 18% more carriers than Vehicle Maintenance under SMS and these carriers are involved in 34% more crashes.

Table 2: Evaluation of Carriers Prioritized in Vehicle Maintenance Safety Categories at 80th Percentile Threshold

Safety Category	Crash Rate*	Number of Crashes	A/C Violation Rate**	Number of Prioritized Carriers
SMS Vehicle Maintenance	8.06	23,675	108.4	18,764
Proposed Vehicle Maintenance	7.55	19,039	103.8	11,019
Proposed Vehicle Maintenance: Driver Observed	7.44	23,618	109.7	17,167
Combined *Proposed* Vehicle Maintenance and/or ***Proposed*** Vehicle Maintenance: Driver Observed***	7.47	31,666	107.1	22,092
Percent Difference Between SMS and Combined Proposed Vehicle Maintenance	-7%	34%	-1%	18%

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.
**A/C violation rate is A/C violations per 100 investigations.
***Carriers in this row have percentiles above the 80th percentile threshold in one or both proposed new Vehicle Maintenance safety categories. This row is not the sum of the prior two rows since some carriers are prioritized under both new safety categories.

In addition, moving Controlled Substances/Alcohol violations to Unsafe Driving would help focus FMCSA's investigative resources on carriers with higher crash rates. Table 3 shows that this change, in conjunction with the other proposed changes, would identify carriers with higher crash rates for investigation.

[6] For more information on the analysis and approach behind this proposed reorganization, refer to the IRT Study, "Development and Evaluation of an Item Response Theory (IRT) Model for Motor Carrier Prioritization," which will be available in the docket with the FRN for these proposed changes.

Table 3: Evaluation of Carriers Prioritized in New Unsafe Driving Safety Category

Safety Category	Crash Rate*	Number of Crashes	A/C Violation Rate*	Number of Prioritized Carriers
SMS Unsafe Driving	10.32	27,255	114.1	12,786
SMS Controlled Substances/Alcohol	5.51	182	84.8	805
***Proposed* Unsafe Driving**	**10.63**	**27,550**	**116.8**	**13,353**

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.
**A/C violation rate is A/C violations per 100 investigations.

Reorganized Roadside Violations

Background

Over the past decade, the number of roadside inspection violations used in SMS has grown from about 650 violations to 959 violations. As a result, there are often multiple ways to cite a carrier for the same underlying safety issue.

For example, as shown in Table 4, an inspector could record an inoperative vehicle brake issue at a general level citing one violation or at a more specific level citing violations for each brake component that does not comply with federal regulations.

Table 4: Example Citation Differences for Inoperative Vehicle Break Issue

General Violation	Specific Violations
393.48(a): Inoperative/defective brakes	• 393.45(d): Brake connections with leaks or constrictions • 393.53(b): CMV manufactured after 10/19/94 has an automatic airbrake adjustment system that fails to compensate for wear

Because all roadside violations affect a carrier's measure, these differences can lead to carriers with the same underlying safety issue receiving different SMS results.

Proposal

The proposed methodology would organize the existing 959 roadside violations, along with an additional 14 violations currently not applied to SMS, into 116 violation groups. See **Reorganized Unsafe Driving Category to Include Operating While OOS Violations** for more details on the additional violations. While any of these violations can still be cited during an inspection, for prioritization purposes, violations that identify the same or similar underlying safety issue would be grouped together. If a motor carrier receives more than one of the violations in a violation group during a single inspection, the proposed methodology would treat that set of violations as a single violation when calculating the carrier's measure in that safety category.

For example, the HOS Compliance violations below are part of a violation group related to the safety issue of violating HOS regulations.

Table 5: "HOS Requirements" Violation Group in HOS Compliance Safety Category

Violation	Violation Description
395.3A2-PROP	Driving beyond 14 hour duty period (Property Carrying Vehicle)
395.3A3-PROP	Driving beyond 11 hour driving limit. (Property Carrying Vehicle)
395.3(a)(3)(ii)	Driving beyond 8 hour driving limit since the end of the last on duty, off duty, or sleeper period of at least 30 minutes
395.3B2	Driving after 70 hours on duty in an 8 day period (Property Carrying Vehicle)

If a motor carrier is cited for two or more of the violations above in the same inspection, these violations would all appear in the inspection report. However, when FMCSA analyzes the carrier's data to determine if the carrier should be prioritized, the proposed methodology would count this set of violations as one violation under the "HOS Requirements" violation group.

Grouping a motor carrier's violations before analyzing their data would ensure that motor carriers are treated fairly by holding carriers with similar safety issues to the same standards, regardless of how those issues were documented. This would prevent the inconsistencies in safety category measures that occur when multiple violations are cited for the same underlying safety issue during one inspection. As a result, it would reduce the total violation weights possible in a safety category during an inspection, eliminating the need for the violation weight cap of 30 currently used in SMS.

This reorganization would also make it easier for motor carriers and drivers to identify and address their safety issues. Consolidation produces 116 violation groups, offering a greater level of detail than the 67 groups in SMS. Table 6 shows a summary of the new roadside violation groups by safety category, and Appendix A contains a complete list of all violation groups.

Table 6: Number of Roadside Violations in SMS Compared to Roadside Violation Groups in Proposed Methodology

Safety Category	Violations in SMS	Violation Groups in Proposed Methodology
New Unsafe Driving	59*	32
HOS Compliance	73	9
New Vehicle Maintenance	406	15
New Vehicle Maintenance: Driver Observed	N/A	35
Controlled Substances/Alcohol	11	N/A
HM Compliance	369	14
Driver Fitness	55	11
Total	**973**	**116**

New designates safety categories for the proposed methodology. The new Unsafe Driving category includes Controlled Substances/Alcohol violations.
*Number includes 14 additional violations for operating while under an OOS Order that are not used in the current SMS methodology.

Analysis Method

FMCSA used the ET to compare SMS with and without reorganized violations using the September 2017 Motor Carrier Management Information System (MCMIS) snapshot. For an accurate comparison with the only difference being the reorganization, the Agency did not apply violation weights to either version of SMS.

Evaluation Results

Reorganizing violations would prioritize a very similar carrier population to SMS. As shown in Table 7 below, for any roadside safety category, 97% of the same carriers would be prioritized under both methodologies. FMCSA's analysis indicates that, for prioritization purposes, determining *whether* a safety issue is identified is more influential than determining *how many ways* it was documented.

Table 7: Same Carriers Prioritized With and Without Reorganized Roadside Violations

Safety Category	Percent of Same Carriers Prioritized
New Unsafe Driving	99.9%
HOS Compliance	96%
New Vehicle Maintenance: Driver Observed	92%
New Vehicle Maintenance	94%
HM Compliance	92%
Driver Fitness	99.8%
Any Roadside Safety Category Prioritized (Excludes Crash Indicator)	**97%**

Source: MCMIS September 2017 data snapshot.
New designates safety categories for the proposed methodology. The new Unsafe Driving category includes Controlled Substances/Alcohol violations.

Simplified Roadside Violation Severity Weights

Background

The SMS assigns each roadside violation in a safety category a severity weight that reflects its relationship to crash occurrence and/or crash consequences. FMCSA used a combination of statistical crash analysis and modeling, effectiveness testing, and enforcement personnel expertise to develop these weights. The NAS and other industry stakeholders maintained that the violation severity weights rely too much on expert opinion rather than data analysis.

Proposal

The proposed methodology would replace the "1-10" weighting scale for violations in SMS with a two-value scale: a severity weight of either 1 or 2.

Severity weights would be determined by the set of violations cited during an inspection, within each violation group. If a motor carrier receives one or more violations within a violation group, that set of violations would be assigned a severity weight of 2 if any of the violations meet the following criteria:

- OOS violations (apply to all safety categories except Unsafe Driving)

- Driver Disqualifying violations (apply to Unsafe Driving only, as defined in 49 CFR § 383.51)[7]

If none of the violations in a violation group are OOS or Driver Disqualifying violations, then the violation group would receive a weight of 1.

For example, if a roadside inspector cites a motor carrier with two or more of the violations in the "HOS Requirements" violation group during an inspection as shown in Table 5, and none of its violations in this group are OOS, then this violation group would be assigned a severity weight of 1 in the HOS Compliance safety category. However, if enforcement personnel determine that any of these violations are OOS violations, then the "HOS Requirements" violation group would be assigned a severity weight of 2. For more details on violation groups, see **Reorganized Roadside Violations**.

Analysis Method

The Agency tested and evaluated many different models using reorganized violations, including models that applied regression analysis and IRT to derive violation severity weights. To determine the best approach, the Agency used the ET to compare each model's crash rate for prioritized carriers. To ensure consistency over time, the Agency compared ET results from the September 2018 data snapshot to a previous year; the results were consistent for both timeframes.

Evaluation Results

After conducting analysis on multiple approaches, FMCSA determined that assigning customized weights to all violations was not as important as noting that the violation occurred. Three models had comparable ET results:

- **Model 1 (Baseline):** Individual violations without groups; each violation discovered during an inspection would receive a weight of 1.
- **Model 2:** New violation groups applied; each set of violations discovered within a violation group during an inspection would count as one violation with a severity weight of 1.
- **Model 3:** New violation groups applied; each set of violations discovered within a violation group during an inspection would count as one violation with a severity weight of 1, unless an OOS violation or Driver Disqualifying violation is discovered, then the set would have a weight of 2.

[7] Disqualifying violations defined in 49 CFR § 383.51 include specific traffic enforcement violations in the Unsafe Driving such as "reckless driving" and "speeding 15+ MPH over the speed limit" as well as additional Controlled Substances/Alcohol BASIC violations such as "driving under the influence of alcohol or drugs."

Table 8: Evaluation of Simplified Severity Weight Models

Crash Rate* for Carriers Prioritized in Any Safety Category (Excludes Crash Indicator)		
Model 1 (Baseline) All Violations = Weight of 1	**Model 2** All Violation Groups = Weight of 1	**Model 3** All Violation Groups = Weight of 1 or 2
6.71	6.74	6.95

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
Note: All three models include the reorganized BASICs changes but do not include subsequent changes listed in this document such as proportionate percentiles.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.

Of the three models, Model 3 has the highest crash rate for carriers prioritized in any safety category at 6.95 crashes per 100 Power Units (PUs). This simplified approach would identify carriers with higher crash rates for prioritization and make it clearer why a specific violation is weighted more heavily than others.

In addition, by assigning more weight to OOS violations and Driver Disqualifying violations, this approach would leverage North American Standard OOS criteria developed by the Commercial Vehicle Safety Alliance (CVSA), as well as Driver Disqualifying violation criteria outlined in 49 CFR § 383.51.

Proportionate Percentiles

Background

The SMS places carriers in Safety Event Groups (SEGs) based on the number of safety events, or inspections and crashes in which they have been involved. This concept is important because it accounts for the inherently greater variability in inspection, violation, and crash rates based on very different levels of exposure. SEGs allow SMS to handle the widely diverse motor carrier population while ensuring that similarly situated carriers are treated with the same standards. However, carriers can sometimes experience a large jump of 20 or more percentiles without a corresponding change in measure simply because they gain an inspection and move to the next highest SEG.

Proposal

The proposed methodology would use proportionate percentiles to eliminate large fluctuations in percentile results that occur for non-safety related reasons under SMS' SEG approach. Proportionate percentiles would use the exact number of safety events to assign a percentile for a motor carrier, no longer relying on the cut-offs established by SEGs.

This methodology has several benefits compared to the SEG approach used in SMS:

- Customized to a carrier's exact number of events.
- Ensures stable results for carriers by only allowing for gradual percentile changes from month to month when dropping or adding events.
- Allows an individual carrier's change in measure to have greater influence on their percentile. There would no longer be substantial percentile increases without a corresponding measure increase.

Proportionate percentiles would improve the Agency's ability to compare carriers with similar carriers, and more precisely and accurately indicate how a carrier's performance is trending from month to month. Step-by-step instructions for calculating proportionate percentiles are provided in Table 9 below.

Table 9: Proportionate Percentile Calculation Methodology

Calculation Step	Example: HOS Compliance Safety Category*
1. **Group carriers** by number of relevant roadside inspections and crashes and **calculate median (middle value)** of each grouping. FMCSA will perform this step annually or as needed to establish the measure-to-percentile benchmarks.	Grouping 1: Carriers with 3-10 driver inspections. Median: **5** driver inspections. Grouping 2: Carriers with 11-20 driver inspections. Median: **13** driver inspections.
2. **Calculate the measure** for each carrier based on the new prioritization methodology.	The example carrier has **9** driver inspections and an HOS Compliance measure of **1.41**.
3. **Determine which two medians (calculated in Step 1) the carrier falls between**, based on that carrier's unique number of roadside inspections and crashes.	The example carrier has **9** driver inspections, so they fall between the medians of **5** and **13**.
4. Using the carrier's measure, **calculate two percentiles for the carrier—one for each of the two median number of inspections that it falls between**.	Percentile 1: Measure of **1.41** and **5** inspections (median 1) would put carrier in the **51st percentile**. Percentile 2: Measure of **1.41** and **13** inspections (median 2) would put carrier in the **73rd percentile**.
5. **Calculate a weighted average of both percentiles** to account for how close a carrier is to each median.	The example carrier with **9** driver inspections is exactly halfway between the medians of **5** and **13**, so their percentile would be the average of the percentiles at 5 and 13 (no weighting needed): (51+73)/2 = **62nd percentile** If a carrier had 10 inspections, the average would be weighted more heavily toward the percentile at 13 inspections. Conversely, if the carrier had 8 inspections, it would be weighted more heavily toward the percentile at 5 inspections. • 10 inspections: **65th percentile** • 8 inspections: **59th percentile**

*This example is for illustrative purposes only. It is not based on real carrier data, and the measure-to-percentile benchmarks and medians would be recalculated regularly.

In addition, this new approach would only use SEGs to establish measure-to-percentile benchmark median values that are used to calculate customized proportionate percentiles. These benchmarks would be recalculated infrequently (annually, or when needed) to allow carriers to track month-to-month percentile trends solely based on their own performance. The benefit of this approach is that it establishes measure-to-percentile relationships at the start of a year and applies that fixed relationship across the entire year rather than updating monthly. After the benchmark run has been established, any changes to a carrier's percentile would be based solely on the carrier's own safety performance and not be affected by the safety performance of other carriers. This would allow carriers to improve and track their percentiles without the influence of other carriers during the year.

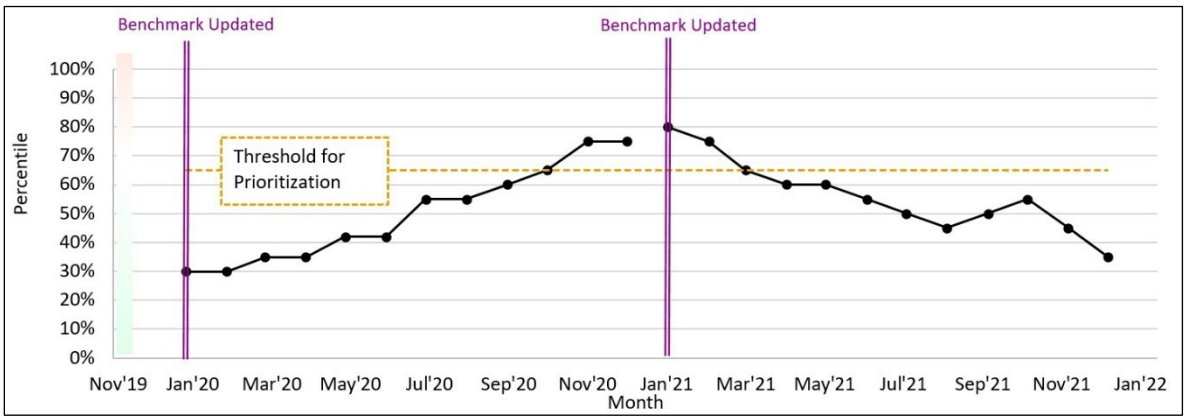

Figure 3. Example Carrier: Annual Percentile Trend with Fixed Measure-to-Percentile Relationship in HOS Compliance Safety Category[8]

Figure 3 shows an example of a carrier's safety category percentile under this new approach across time. In January 2020, the carrier's percentile is established when its safety category measure is compared to carriers with similar number of safety events as part of an annual benchmark run. In this case, the carrier's measure gets worse, which causes the carrier's percentile to move up through December 2020. These changes in percentile after the benchmark run are based solely on carrier's own performance. Then in January 2021, the carrier's percentile is re-established when its results are used and compared to other carriers in the next benchmark run. This re-established benchmark can move a carrier's percentile value up or down based on changes that the population of carriers has experienced. Historically, these changes over a course of a year have been relatively small (a difference of a few percentiles compared to 20+ percentile jumps experienced under the current approach). After the January 2021, the carrier's measure or results get better, which causes the carrier's percentile to move down through December 2021.

Analysis Method

FMCSA used the ET to compare the proposed methodology with and without proportionate percentiles to assess whether this proposed change improved the identification of carriers with high crash rates. In addition, the Agency calculated the impact of the proposed change by determining the frequency and magnitude of instances where carrier measures decreased and their percentiles increased and vice versa from month to month, comparing the current SEG approach and the proposed proportionate percentile approach.

Evaluation Results

ET results in Table 10 show that proportionate percentiles enhance the methodology's ability to identify carriers for interventions. Including proportionate percentiles in the proposed methodology results in a slight increase in the crash rate of prioritized carriers, from 7.18 crashes per 100 PUs to 7.23 crashes per 100 PUs.

[8]Figure 3 is included for illustrative purposes and not necessarily match what carriers or enforcement will see on the proposed Prioritization Preview website.

Table 10: Crash Rates for Prioritized Safety Categories in Proposed Methodology

Crash Rate*		Number of Crashes	
No Proportionate Percentiles	Proportionate Percentiles	No Proportionate Percentiles	Proportionate Percentiles
7.18	7.23	87,734	87,370

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
Note: Both models (with and without proportionate percentiles) include reorganized BASICs, reorganized roadside violations and simplified roadside violation severity weights changes but do not include subsequent changes listed in this document such as new segmentations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.

In addition, the results show that the proposed approach works as anticipated in mitigating unexpected jumps in percentiles. Using the December 2020 and January 2021 snapshots, FMCSA calculated the number of carriers that had an unexpected percentile increase and a corresponding decrease in measure under the current SMS approach compared with the newly proposed proportionate percentiles. The results shown in Table 11 indicate that the proposed approach would reduce the number of unexpected jumps of greater than 1 percentile by 78% (1,019 vs. 224). Further, for the analysis snapshot used, the approach eliminated percentile jumps of greater than 10 percentiles when the carrier's measure decreased. Table 12 shows that the magnitude of the percentile jumps also decreased under the new approach—in SMS the maximum percentile jump in any safety category was 35.9 percentiles compared with 10 percentiles under the new approach.

Table 11: Number of Instances where Carrier Measures Decreased and Percentiles Increased (SMS SEGs vs. Proportionate Percentiles)

Safety Category	Number of Instances with Increase of Greater than 1 Percentile: SEGs	Number of Instances with Increase of Greater than 1 Percentile: Proportionate Percentiles	Number of Instances with Increase of Greater than 10 Percentiles: SEGs	Number of Instances with Increase of Greater than 10 Percentiles: Proportionate Percentiles
New Unsafe Driving – Straight	9	7	0	0
New Unsafe Driving – Combination	26	12	5	0
Crash Indicator – Straight	4	4	0	0
Crash Indicator – Combination	17	21	9	0
HOS Compliance	419	91	203	0
New Vehicle Maintenance	195	26	14	0
New Vehicle Maintenance: Driver Observed	306	49	20	0
HM Compliance – Cargo Tank	8	1	1	0

Source: MCMIS December 2020 and January 2021 data snapshots. *New* designates safety categories for the proposed methodology. The new Unsafe Driving category includes Controlled Substances/Alcohol violations.

Safety Category	Number of Instances with Increase of Greater than 1 Percentile: SEGs	Number of Instances with Increase of Greater than 1 Percentile: Proportionate Percentiles	Number of Instances with Increase of Greater than 10 Percentiles: SEGs	Number of Instances with Increase of Greater than 10 Percentiles: Proportionate Percentiles
HM Compliance – Non-Cargo Tank	4	2	0	0
Driver Fitness	31	11	9	0
Total	**1,019**	**224**	**261**	**0**
Difference	**-78%**		**-100%**	

Table 12: Magnitude of Carrier Percentile Increases with Corresponding Measure Decreases (SMS SEGs vs. Proportionate Percentiles)

Safety Category	Maximum Percentile Increase: SEGs	Maximum Percentile Increase: Proportionate Percentiles	Difference
New Unsafe Driving – Straight	7.1	2.7	-62%
New Unsafe Driving – Combination	13.1	4.3	-67%
Crash Indicator – Straight	8	6.1	-24%
Crash Indicator – Combination	17.9	10	-44%
HOS Compliance	23.2	8.3	-64%
New Vehicle Maintenance	17.6	5.4	-69%
New Vehicle Maintenance: Driver Observed	17.9	5.1	-72%
HM Compliance – Cargo Tank	15.4	3.2	-79%
HM Compliance – Non-Cargo Tank	2.7	2.3	-15%
Driver Fitness	35.9	4	-89%

Source: MCMIS December 2020 and January 2021 data snapshots.
New designates safety categories for the proposed methodology. The new Unsafe Driving category includes Controlled Substances/Alcohol violations.

New Segmentation: Driver Fitness Safety Category

Background

One of the ways the SMS accounts for differences in carrier operations is by segmenting carriers by whether their company operates primarily Straight vehicles or Combination vehicles. Currently, this segmentation only applies when calculating percentiles for the Unsafe Driving and Crash Indicator safety categories. FMCSA decided to explore whether extending segmentation to the rest of the safety categories would provide better carrier-to-carrier comparisons and improve the methodology's ability to identify carriers with high crash rates for interventions.

Proposal

The proposed methodology would extend Straight and Combination segmentation to the Driver Fitness safety category in addition to retaining segmentation in the Unsafe Driving and Crash Indicator safety categories. Table 13 provides the SMS' criteria for Straight and Combination carriers, which would carry over to the proposed methodology.

Table 13: Straight and Combination Carrier Criteria

Carrier Type	Criteria
Straight Carrier	More than 30% of the total PUs in their fleet are straight trucks/other vehicles
Combination Carrier	70% or more of the total PUs in their fleet are combination trucks/motor coach buses

Extending segmentation to Driver Fitness would ensure motor carriers are treated fairly by comparing them to other carriers with similar operations and patterns of violations.

Analysis Method

FMCSA explored extending Straight and Combination segmentation to the HOS Compliance, Vehicle Maintenance: Driver Observed, Vehicle Maintenance, and Driver Fitness safety categories by following the process below. Segmentation was applied after establishing the violation severity weights.

1. Apply Straight and Combination segmentation for each safety category above.
2. Compare violation rates among Straight and Combination carriers in each safety category to determine whether segmentation is justified.
3. Run ET to assess the impact on crash rates of carriers prioritized and number of Straight and Combination carriers prioritized.

Evaluation Results

FMCSA's analysis shows that Straight and Combination segmentation would improve the effectiveness of the Driver Fitness safety category. There are large differences in the violation rates of Combination and Straight carriers in Driver Fitness. As shown in Table 14, the violation rates of Straight carriers are nearly four times as high as Combination carriers. Based on these results, segmentation is justified to ensure carriers are compared to others with similar operations and violation rates.

Table 14: Driver Fitness Violation Rates for Straight and Combination Carriers

Carrier Type	Driver Fitness Violation Rate*
Straight	7.74
Combination	1.96

Source: MCMIS September 2018 data snapshot.
*Violation rate is violations per 100 inspections

Applying segmentation to the Driver Fitness safety category would identify prioritized carriers with higher crash rates in both the Straight and Combination segments. While it does decrease the number of carriers prioritized in the Driver Fitness, the carriers that are removed have a lower crash rate, which would sharpen the focus on carriers at higher risk for crashes.

Table 15: Carriers Prioritized in Driver Fitness With and Without Straight and Combination Segmentation

Prioritized Carrier Segment	Number of Carriers Prioritized without Segmentation	Number of Carriers Prioritized with Segmentation	Difference (Number of Carriers Prioritized)	Crash Rate* without Segmentation	Crash Rate* with Segmentation	Difference in Crash Rate*
Combination Carriers	379	507	+128	6.55	6.93	+0.38
Straight Carriers	1,687	1,357	-330	1.97	2.05	+0.08
All Prioritized Carriers (Total)	**2,066**	**1,864**	**-202**	**3.24**	**3.71**	**+0.47**

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
Note: Both models (with and without segmentation) include reorganized BASICs, reorganized roadside violations and simplified roadside violation severity weights changes but do not include proportionate percentiles or the improved Intervention Thresholds.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.

FMCSA also tested segmentation in the HOS Compliance, Vehicle Maintenance: Driver Observed, and Vehicle Maintenance safety categories, but the addition of segmentation lowered the crash rate of prioritized carriers in these safety categories.

Improved Intervention Thresholds

Background

Carriers may be prioritized for interventions if their percentiles are at or above certain thresholds called Intervention Thresholds. Industry stakeholders noted that certain safety categories are not as well correlated with crash risk as others (specifically the Driver Fitness and HM Compliance safety categories). As a result, the current Intervention Thresholds for those safety categories reduces the ability of SMS to effectively identify carriers with high crash rates.

Proposal

The proposed methodology would adjust the Intervention Thresholds to de-emphasize the Driver Fitness and HM Compliance safety categories given their lower correlations to crash risk, while maintaining the current thresholds for other higher crash risk safety categories. The Intervention Thresholds in Driver Fitness and HM Compliance would go up by 10 percentiles (the higher the percentile Intervention Threshold, the fewer carriers prioritized). This would allow FMCSA enforcement resources to better focus on carriers with compliance issues that correspond to crash risk.

The Driver Fitness thresholds would move from:

- 80% to 90% for general carriers
- 65% to 75% for passenger carriers
- 75% to 85% for HM carriers

The HM Compliance thresholds would increase from 80% to 90% for all carrier types.

For the criteria for the general carrier, passenger carrier, and HM carrier thresholds, download the SMS Methodology.[9]

Analysis Method

FMCSA used the ET to determine the most effective way to adjust the Intervention Thresholds for the safety categories that have lower correlations to crash rate. Consideration was given to maintaining a similar number of carriers prioritized under the current SMS methodology and Intervention Thresholds. Because the other changes in the higher crash-correlated safety categories increased the number of carriers prioritized using the current Intervention Thresholds, the Agency explored adjusting the Interventions Thresholds in the Driver Fitness and HM Compliance safety categories to complement this increase and better identify carriers with higher crash rates.

Evaluation Results

Adjusting Intervention Thresholds in the Driver Fitness and HM Compliance BASICs would reduce the number of prioritized carriers by 463. Based on the ET results, the carriers removed from prioritization have a crash rate of 4.15, which is lower than the national average of 5.00 crashes per 100 PUs. Overall, under this proposed change, the crash rate of the remaining prioritized carriers would increase from 7.19 to 7.77 crashes per 100 PUs.

Previously Studied Changes

FMCSA studied several of the changes as part of the SMS enhancements proposed in October 2016. As part of this effort, the Agency previously analyzed and evaluated these changes using the ET. FMCSA revisited the 2016 analysis results and conducted new analysis with more recent data to confirm the 2016 findings (MCMIS September 2018 data snapshot for model calculations and MCMIS December 2020 data snapshot for 24-month crash rate calculations from October 2018 to September 2020). For the 2016 analysis methods and evaluation results, see the 2016 Foundational Document.

Increased Focus on Recent Violations

Background

In SMS, motor carriers may be prioritized in HOS Compliance, Vehicle Maintenance, HM Compliance, and Driver Fitness even if they have not received a recent violation in these categories.

Proposal

The proposed methodology applies to the HOS Compliance, Vehicle Maintenance, Vehicle Maintenance: Driver Observed, HM Compliance, and Driver Fitness safety categories. The proposed approach would only calculate percentiles in a safety category if the motor carrier has received at least one roadside violation in that category within the past 12 months. This means that a carrier with violations in a safety category that are all 12 months or older would not be assigned a percentile and not prioritized in that category based on roadside inspection data alone.

[9] SMS Methodology, version 3.13, December 2021: https://csa.fmcsa.dot.gov/documents/smsmethodology.pdf

Analysis Method

The analysis team identified the list of carriers that would be removed from prioritization based on the proposed data sufficiency rule and compared the crash rates of those carriers with the general carrier population.

Evaluation Results

The analysis showed that 1,081 carriers would be removed from prioritization based on the proposed data sufficiency requirements. The ET results, shown below in Table 16, demonstrate that these carriers have lower or similar crash rates compared to national average of 5.00 crashes per 100 PUs. In other words, the carriers removed from prioritization do not appear to be a higher crash risk than the average carrier population.

Table 16: Evaluation of Carriers No Longer Prioritized Under the Proposed Data Sufficiency Rules

Safety Category	Number of Carriers No Longer Prioritized	Crash Rate*
HOS Compliance	615	5.18
Vehicle Maintenance	145	3.10
Vehicle Maintenance: Driver Observed	501	4.97
Driver Fitness	14	0.00
Total Carriers No Longer Prioritized**	**1,081**	**4.36**

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.
**The total number of carriers no longer prioritized is less than the sum of carriers no longer prioritized in each individual safety category because some carriers are prioritized in multiple safety categories.

In addition, 60% of the 1,081 carriers in Table 16 were no longer active or operating in interstate commerce in the Census two years after the data snapshot. Likely, many of these carriers went out of business at the time of the SMS run—which is why they have had no inspections in the past 12 months—but remain active in the Census until formally removed when they fail to update their registration information as part of the bi-annual requirement.

Updated Utilization Factor

Background

Up-to-date VMT data is essential to calculating the Utilization Factor and accounting for the higher-than-average exposure of carriers that drive their vehicles more often than most, also known as high-utilization carriers. The Utilization Factor accounts for increased exposure by adjusting their average PU values[10] when calculating measures in the Unsafe Driving and Crash Indicator BASICs. Carriers with higher Utilization Factors can see a reduction in their measures for the Unsafe Driving and Crash Indicator BASICs to account for their increased on-road

[10] The average PUs for each carrier is calculated by taking the average of (i) the carrier's current number of PUs; (ii) the number of PUs the carrier had 6 months ago; and (iii) the number of PUs the carrier had 18 months ago.

exposure. Industry stakeholders noted that the current limit for the Utilization Factor of 200,000 VMT per average PUs does not accurately reflect the increased exposure of high-utilization carriers beyond 200,000 VMT per average PUs.

Proposal

The proposed methodology would extend the Utilization Factor to carriers that drive up to 250,000 VMT per average PUs to account more accurately for the increased levels of on-road exposure to crashes and on-road enforcement of motor carriers with the most VMT per vehicle.

Analysis Method

When FMCSA initially began exploring this enhancement in 2016, the Agency reviewed carrier-reported VMT data from 2014 and found that more carriers are reporting higher VMT now than they were when the Utilization Factor was developed in 2009. After reviewing carrier-reported VMT data from 2014, FMCSA determined that extending the Utilization Factor from 200,000 to 250,000 VMT per average PUs would allow for better measure of exposure for high-utilization carriers.

FMCSA revisited this analysis using more current data from the December 2020 MCMIS snapshot to confirm that the conclusions from 2016 are still accurate.

Evaluation Results

When the proposed methodology was applied to the December 2020 MCMIS snapshot, extending the Utilization Factor increased exposure for 314 U.S.-domiciled carriers with either Interstate or Intrastate HM operations. Of these, 255 carriers received percentiles in Unsafe Driving, 157 received percentiles in Crash Indicator, and 98 carriers received percentiles in both categories.

The crash rates and inspection rates per average PUs of these 314 carriers indicate that collectively these carriers have on-road exposure metrics that are two to three times as high as the national average and are substantially high across the Straight and Combination carrier segments, as shown in Table 17.

Table 17: Exposure Data for Carriers with 200,000 to 250,000 VMT per Average PUs Compared to National Average

Carrier Segment	Number of Carriers with 200,000-250,000 VMT/Avg. PUs	Crash Rate* for Carriers with 200,000-250,000 VMT/Avg. PUs	National Average Crash Rate*	Inspection Rate for Carriers with 200,000-250,000 VMT/Avg. PUs	National Average Inspection Rate
All Carriers	314	16.63	4.91	3.45	0.96
Straight Carriers	40	8.41	2.53	1.88	0.50
Combination Carriers	274	18.05	8.31	3.72	1.62

Source: MCMIS December 2020 data snapshot. Crash and inspection rate are based on two-year period of January 2019 to December 2020.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.

This data is consistent with the 2016 Foundational Document findings and supports the conclusion that this carrier-reported data is accurate at an aggregate level. That is, these carriers are operating at a high utilization between 200,000 to 250,000 VMT per average PUs.

FMCSA proposes increasing the Utilization Factor to include these carriers because the prioritization methodology should reflect and be responsive to accurate carrier data.

New Segmentation: HM Compliance Safety Category

Background

The SMS compares cargo tank carriers to non-cargo tank carriers when calculating percentiles in the HM Compliance safety category. Industry stakeholders voiced concerns that these carriers should not be compared because they have fundamentally different operations and as a result often receive different violations.

Proposal

The proposed methodology would segment the HM Compliance safety category by Cargo Tank and Non-Cargo Tank carriers to ensure motor carriers are treated fairly by comparing them to other carriers with similar operations and patterns of violations. The criteria for classifying carriers as Cargo Tank or Non-Cargo Tank carriers is provided in Table 18 below. An HM placardable vehicle inspection is classified as a cargo tank inspection if the carrier's cargo tank type on its inspection report is MC 300 Series, DOT 400 Series, or Other. All other HM placardable inspections are classified as Non-Cargo Tank inspections.

Table 18: HM Compliance Cargo Tank and Non-Cargo Tank Carrier Criteria

Carrier Type	Criteria
Cargo Tank Carrier	50% or more of their total placardable HM inspections are cargo tank inspections.
Non-Cargo Tank Carrier	Less than 50% of their total placardable HM inspections are cargo tank inspections.

Analysis Method

FMCSA reviewed the HM Compliance segmentation analysis from the 2016 Foundational Document and conducted the following analysis with the more recent MCMIS data using the December 2020 snapshot:

- Calculated the number of HM inspections and associated HM violations by new violation groups for Cargo Tanks and Non-Cargo Tank segments to see if there are fundamental differences between these two segments
- Identified carriers prioritized in the HM Compliance safety category in the following scenarios and compared ET results in terms of crash rates, HM violation rates, HM OOS rates from inspections, and A/C violations rates from investigations:
  - Current SMS Methodology
  - Proposed Prioritization Methodology with HM segmentation and the HM Compliance threshold set at the 80th percentile
  - Proposed Prioritization Methodology with HM segmentation and the HM Compliance threshold set at the 90th percentile

Evaluation Results

First, the industry feedback that Cargo Tank and Non-Cargo Tank carriers receive different violations was confirmed. Table 19 shows that, except for some very rarely cited violations, the violation rates for each violation group are very different for Cargo and Non-Cargo Tank

carriers. This analysis supports the rationale that these carriers have fundamentally different operations and as a result often receive different violations.

Table 19: Number of Violations and Violation Rates by Violation Groups for Cargo Tank and Non-Cargo Tank Carriers

Violation Group	Cargo Tank		Non-Cargo Tank		Cargo Tank Percent Higher than Non-Cargo Tank
	Number of Violations*	Violation Rate**	Number of Violations*	Violation Rate**	
HM Load Securement	93	0.11	791	1.53	-93%
HM Loading	83	0.09	103	0.2	-55%
HM Marking	3,386	3.84	3,267	6.31	-39%
Shipping Paper	3,576	4.05	2,882	5.57	-27%
HM Requirements	454	0.51	282	0.55	-7%
Forbidden Transportation of HM	1	0.00	1	0.00	N/A
Exceeding Package Specifications	3	0.00	0	0.00	N/A
Attending HM Cargo	9	0.01	2	0.00	N/A
No HM Safety Permit	8	0.01	6	0.01	0%
HM Instructions	54	0.06	20	0.04	50%
Unsafe HM Vehicle Placement	15	0.02	3	0.01	100%
Release of HM	754	0.85	171	0.33	158%
Package Testing	690	0.78	84	0.16	388%
Cargo Tank	833	0.94	93	0.18	422%
Total	**9,959**	**11.29**	**7,705**	**14.89**	**-24%**

Source MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month violation rate calculations.
*The violations of an inspection that fall into the same violation group is counted as 1.
**Violation rate is violations per 100 HM inspections.

FMCSA compared the ET results of carriers prioritized in the current SMS HM Compliance safety category with the revised HM Compliance safety category that includes the proposed segmentation. FMCSA conducted this analysis using Intervention Thresholds of both 80% and 90% to isolate the impact of the segmentation compared with the threshold adjustment.

As shown in Table 20 below, when keeping the threshold at 80%, the segmented HM Compliance safety category identifies 20 fewer carriers than current SMS. The results between these two scenarios are very similar because 97% of the carriers prioritized under the second scenario are also prioritized under current SMS. The small degree of turnover leads to a slightly lower crash rate and a slightly higher HM A/C violation rate for the segmented HM Compliance category.

When the higher Intervention Threshold of 90% is applied, only 253 carriers are prioritized, which lowers the crash rate to 4.91 crashes per 100 PUs. However, the HM violation rate and HM OOS rate increase, and the A/C violation rates increase substantially. This indicates that

even though the HM Compliance safety category is not well correlated with crash risk, the combination of the Cargo Tank segmentation and an increased Intervention Threshold prioritizes carriers more likely to have committed roadside violations or have A/C violations discovered during an investigation. Thus, these changes would prioritize FMCSA resources on carriers more likely to demonstrate safety and compliance issues during an investigation.

Table 20: SMS HM Compliance Safety Category and Proposed Segmented HM Compliance with Thresholds at 80% and 90%

Scenario	Prioritized Carriers	Crash Rate*	HM Violation Rate**	HM OOS Rate***	A/C Violation Rate****	HM A/C Violation Rate*****
1. SMS HM Compliance: 80th Percentile Threshold	490	6.55	16%	5%	125.0	45.5
2. Segmented HM Compliance: 80th Percentile Threshold	470	5.77	16%	5%	123.0	49.0
3. Segmented HM Compliance: 90th Percentile Threshold	253	4.91	20%	6%	152.6	66.7

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.
**HM violation rate is the precent of HM inspections with HM violations.
***HM OOS rate is the percent of HM inspections with HM OOS violations.
****A/C violation rate is A/C violations per 100 investigations.
*****HM A/C violation rate is HM A/C violations per 100 HM investigations.

Reorganized Unsafe Driving Category to Include Operating While OOS Violations

Background

SMS places operating while OOS violations across multiple safety categories based on the underlying out-of-service violation. For example, a carrier that had a violation cited against its driver who operated after being placed OOS for an HOS violation and another driver who operated after being placed OOS for a vehicle violation, would have the violations placed in the HOS Compliance BASIC and in the Vehicle Maintenance BASIC, respectively. However, operating while under an OOS Order demonstrates the same behavior of disregarding the safety regulations, regardless of the original reason for the order. After reviewing operating while OOS violations, FMCSA determined that they are more closely related to the Unsafe Driving safety category because they reflect driver-based safety problems related to disregarding OOS Orders.

Proposal

The proposed methodology would move violations related to operating while OOS to the Unsafe Driving safety category to make it easier to identify and correct driver safety problems related to operating while OOS. Table 21 below lists descriptions for the operating while OOS violations in SMS that would be grouped in the Unsafe Driving safety category under the proposed methodology.

Table 21: Operating While OOS Violations Moving to Unsafe Driving Safety Category

Violation	Violation Description	Safety Category in SMS	Safety Category in Proposed Methodology
390.3(e)	Prohibited from performing safety sensitive functions per 382.501(a) in the Drug and Alcohol Clearinghouse.	Controlled Substances/Alcohol (CS/A)	**Unsafe Driving (with CS/A violations)**
392.5(c)(2)	Violating OOS order pursuant to 392.5(a)/(b)	Controlled Substances/Alcohol (CS/A)	**Unsafe Driving (with CS/A violations)**
395.13(d)	Driving after being declared OOS for HOS violation(s)	HOS Compliance	**Unsafe Driving (with CS/A violations)**
396.9(c)(2)	Operating an OOS vehicle	Vehicle Maintenance	**Unsafe Driving (with CS/A violations)**

In addition to these SMS violations, 14 new violations related to operating while OOS would be added to the Unsafe Driving safety category. In the past few years, many new operating while OOS violations have been recorded as part of FMCSA's roadside inspection program. The proposed "Operating while OOS" violation group in the new Unsafe Driving safety category allows these violations to be included. The violations are listed below.

- **385.105B-OOSO:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Inadequate Corrective Action
- **385.111A-OOSO**: OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - UNSAT/UNFIT
- **385.111C1-OOSO:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Suspended Operating Authority for UNSAT Rating or Fail
- **385.111C2-OOSO:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Revoked Operating Authority
- **385.13A1:** Operating a commercial motor vehicle after the effective date of an Unsatisfactory rating - HM and Passenger carriers
- **385.13A2:** Operating a commercial motor vehicle after the effective date of an Unsatisfactory rating - all other carrier types
- **385.308D:** Operating in violation of FMCSA Operational Out of Service order for Failure to respond to Expedited Action Notification
- **385.325C:** Operating in interstate commerce on or after the Operational Out of Service order date for failure of a Safety Audit
- **385.337B:** Operating in violation of FMCSA Operational Out of Service order for Failure to permit a Safety Audit
- **386.72B4-OOSOMC:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Imminent Hazard - Motor Carrier.
- **386.83A1-OOSOFHC:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Failure to pay fine - For-Hire Carrier.
- **386.83A1-OOSOPC:** OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Failure to pay fine - Private Carrier.

- **386.83C:** Failing to comply with a Failure to Pay Order to Cease Operations
- **386.84A1:** Operating with suspended registration for non-payment of a civil penalty

Analysis Method

The analysis conducted for the 2016 Foundational Document found that this change would not impact the crash rate of those carriers identified for interventions. This analysis was updated using the MCMIS September 2018 data snapshot for model calculations and the MCMIS December 2020 data snapshot for 24-month crash rate calculations.

The analysis approach included:

- Identifying the number of carriers that received violations for operating while OOS during the analysis period for the Sept. 2018 snapshot.
- Re-running the proposed prioritization model for Unsafe Driving without the operating while OOS violations.
- Determining how many carriers are prioritized in Unsafe Driving with and without these violations.
- Calculating and comparing crash rates and A/C violation rates from investigations for each of these categories before and after the change.

Evaluation Results

The analysis determined that 2,772 carriers received a violation for operating while OOS during the 2-year time period. Table 22 shows the ET results for the carriers prioritized in Unsafe Driving with and without these violations.

Table 22: Impact of Moving Operating While OOS Violations to Unsafe Driving Safety Category

Unsafe Driving Safety Category Alternative (With or Without OOS Violations)	Number of Prioritized Carriers	Crash Rate*	A/C Violation Rate**
Unsafe Driving **without** operating while OOS violations	13,274	10.63	115.6
Unsafe Driving **with** operating while OOS violations	13,353	10.63	116.8

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.
**A/C violation rate is A/C violations per 100 investigations.

This analysis confirms the findings from the 2016 Foundational Document, which is that this change would not affect the crash rate of the carriers identified for interventions in Unsafe Driving.

Overall Effectiveness of Proposed Changes

These proposed enhancements would address stakeholder criticisms of SMS while also increasing the focus on carriers that pose the greatest safety risk. Table 23 shows that these proposed changes would slightly increase the number of carriers prioritized for interventions from 50,002 to 51,311 (3%). Moreover, the group of carriers prioritized for interventions under these proposed changes would have a crash rate 10% higher than those currently prioritized.

Table 23: Overall Effectiveness: SMS Compared to Proposed Methodology

Safety Category	Number of Prioritized Carriers		Crash Rate*	
	Current Methodology	Proposed Methodology	Current Methodology	Proposed Methodology
Unsafe Driving	12,786	13,353	10.32	10.63
Crash Indicator	8,822	8,926	9.77	9.83
HOS Compliance	23,493	24,207	8.54	8.81
SMS Vehicle Maintenance	18,764	N/A	8.06	N/A
New Vehicle Maintenance	N/A	11,019	N/A	7.55
New Vehicle Maintenance: Driver Observed	N/A	17,167	N/A	7.44
HM Compliance	490	253	6.55	4.91
SMS Controlled Substances/Alcohol	805	N/A	5.51	N/A
Driver Fitness	2,313	1,747	3.75	3.56
Any Safety Category Prioritized	**50,002**	**51,311**	**7.08**	**7.77**
Percent Difference from Current Methodology	**N/A**	**3%**	**N/A**	**10%**

Source: MCMIS September 2018 data snapshot used for model calculations. MCMIS December 2020 data snapshot (October 2018 to September 2020) used for 24-month crash rate calculations.
*Crash rate is crashes per 100 PUs. National crash rate over the same time period is 5.00 crashes per 100 PUs.

How Will FMCSA Inform Stakeholders?

FMCSA continues to actively seek stakeholder feedback and build on our commitment to transparency. FMCSA published a Federal Register Notice announcing a preview and comment period of the proposed enhancements outlined above. Following a public comment period, the Agency will review feedback and make refinements before implementation. FMCSA is listening, because together we can save more lives.

A Prioritization Preview website will be launched in February 2023, after the Federal Register Notice is released. Visit this Preview site for more information and to see an example carrier that illustrate the proposed enhancements in action. The Preview can be accessed from the SMS website[11] and the CSA website[12] when it is available.

[11] SMS website: https://ai.fmcsa.dot.gov/SMS/
[12] CSA website: https://csa.fmcsa.dot.gov/

Appendix A: Violation Groups

Unsafe Driving

Table 24: Unsafe Driving Violation Groups

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
Consuming Alcohol	392.5A	Driver consuming an intoxicating beverage within 4 hours before operating a motor vehicle	Y
Consuming Alcohol	392.5A1	Driver consuming an intoxicating beverage within 4 hours before operating a motor vehicle	Y
Consuming Alcohol	392.5A2-DETECT	Driver having any measured alcohol concentration, or any detected presence of alcohol while on duty, or operating, or in physical control of a commercial motor vehicle	Y
Consuming Alcohol	392.5A2-UI	Operating a CMV while under the influence of an intoxicating beverage regardless of its alcohol content	Y
Failing to Dim Headlamps	392.2DH	Headlamps - Failing to dim when required	N
Failing to Maintain Lane	392.2-ML	Failure to Maintain Lane	N
Failing to Obey Traffic Control Device	392.2C	Failure to obey traffic control device	N
Failing to Use Caution for Hazardous Condition	392.14	Failed to use caution for hazardous condition	N
Failing to Use Hazard Warning Flashers	392.22A	Failing to use hazard warning flashers	N
Failing to Use Seat Belt	392.16	Failing to use seat belt while operating a CMV	N
Failing to Yield Right of Way	392.2Y	Failure to yield right of way	N
Following Too Close	392.2FC	Following too close	Y
Improper Lane Change	392.2LC	Improper lane change	Y

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
Improper Passing	392.2P	Improper passing	N
Improper Turns	392.2T	Improper turns	N
Inattentive Driving	392.2-INAT	Inattentive Driving	N
Lane Restriction	392.2LV	Lane Restriction violation	N
Operating While Out of Service	385.13A1	Operating a commercial motor vehicle after the effective date of an Unsatisfactory rating - HM and Passenger carriers	Y
Operating While Out of Service	385.13A2	Operating a commercial motor vehicle after the effective date of an Unsatisfactory rating - all other carrier types	Y
Operating While Out of Service	385.105B-OOSO	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Inadequate Corrective Action	Y
Operating While Out of Service	385.111A-OOSO	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - UNSAT/UNFIT.	Y
Operating While Out of Service	385.111C1-OOSO	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Suspended Operating Authority for UNSAT Rating or Fail	Y
Operating While Out of Service	385.111C2-OOSO	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: MX Carrier - Revoked Operating Authority.	Y
Operating While Out of Service	385.308D	Operating in violation of FMCSA Operational Out of Service order for Failure to respond to Expedited Action Notification	Y
Operating While Out of Service	385.325C	Operating in interstate commerce on or after the Operational Out of	Y

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
		Service order date for failure of a Safety Audit	
Operating While Out of Service	385.337B	Operating in violation of FMCSA Operational Out of Service order for Failure to permit a Safety Audit	Y
Operating While Out of Service	386.72B4-OOSOMC	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Imminent Hazard - Motor Carrier.	Y
Operating While Out of Service	386.83A1-OOSOFHC	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Failure to pay fine - For-Hire Carrier.	Y
Operating While Out of Service	386.83A1-OOSOPC	OOS Order - Motor carrier operating a CMV while an existing out-of-service order is in effect: Failure to pay fine - Private Carrier.	Y
Operating While Out of Service	386.83C	Failing to comply with a Failure to Pay Order to Cease Operations	Y
Operating While Out of Service	386.84A1	Operating with suspended registration for non-payment of a civil penalty	Y
Operating While Out of Service	390.3E	Prohibited from performing safety sensitive functions per 382.501(a) in the Drug and Alcohol Clearinghouse.	Y
Operating While Out of Service	392.5C2	Violating OOS order pursuant to 392.5(a)/(b)	Y
Operating While Out of Service	395.13D	Driving after being declared out-of-service for HOS violation(s)	Y
Operating While Out of Service	396.9C2	Operating an out-of-service vehicle	Y
Passenger Not Properly Restrained	392.16B	Operating a property-carrying commercial motor vehicle while all other occupants are not properly restrained.	N
Possessing Alcohol While on Duty	392.5A2-POS	Driver having possession of alcohol while on duty, or	N

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
		operating, or in physical control of a CMV	
Possessing Alcohol While on Duty	392.5A3	Driver having possession of alcohol while on duty, or operating, or in physical control of a CMV	N
Reckless Driving	392.2R	Reckless driving	Y
Scheduling Run Requiring Speeding	392.6	Scheduling a run which would necessitate the vehicle being operated at speeds in excess of the prescribed	N
Speeding 6-10 MPH Over Speed Limit	392.2-SLLS2	State/Local Laws - Speeding 6-10 miles per hour over the speed limit.	N
Speeding 11-14 MPH Over Speed Limit	392.2-SLLS3	State/Local Laws - Speeding 11-14 miles per hour over the speed limit.	N
Speeding 15 or More MPH Over Speed Limit	392.2-SLLS4	State/Local Laws - Speeding 15 or more miles per hour over the speed limit.	Y
Speeding in Work/Construction Zone	392.2-SLLSWZ	State/Local Laws - Speeding work/construction zone.	N
Unauthorized Passenger	392.60A	Unauthorized passenger on board CMV	N
Unlawfully Parking	392.2PK	Unlawfully parking and/or leaving vehicle in the roadway	N
Unsafe Bus Operations	390.33-XS	Operating a Motor Coach or other Passenger Carrying vehicle with seating, secured or unsecured, in excess of the manufacturer's (manufacturer, remanufacturer, or final stage manufacturer) designed seating capacity.	N
Unsafe Bus Operations	392.62	Unsafe bus operations	N
Unsafe Bus Operations	392.62A	All standees on a bus are to be rearward of the white standee line	N

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
Unsafe Driving at Railroad Crossing	177.804B1	Failure to comply with the Safe Clearance requirements for highway-rail grade crossings in 49 CFR Section 392.12	Y
Unsafe Driving at Railroad Crossing	392.2RR	Railroad Grade Crossing violation	Y
Unsafe Driving at Railroad Crossing	392.10A1	Failure to stop at railroad crossing - Bus transporting passengers	Y
Unsafe Driving at Railroad Crossing	392.10A2	Failure to stop at railroad crossing - CMV transporting Division 2.3 Chlorine	Y
Unsafe Driving at Railroad Crossing	392.10A3	Failure to stop at railroad crossing - CMV requiring display of HM placards	Y
Unsafe Driving at Railroad Crossing	392.10A4	Failure to stop at railroad crossing - HM Cargo Tank vehicle	Y
Unsafe Driving at Railroad Crossing	392.11	Commercial Vehicle failing to slow down approaching a railroad crossing.	Y
Unsafe Driving of HM	397.3	State/local laws ordinances regulations	N
Unsafe Driving of HM	397.13	Smoking within 25 ft of HM vehicle	N
Unsafe Driving of Migrant Workers	398.4	Driving of vehicles - Transportation of Migrant Workers	N
Use or Possession of Drugs	392.4A	Driver uses or is in possession of drugs	Y
Use or Possession of Drugs	392.4A-POS	Driver on duty and in possession of a narcotic drug / amphetamine	Y
Use or Possession of Drugs	392.4A-UI	Driver on duty and under the influence of, or using a narcotic drug / amphetamine, which renders the driver incapable of safe operation.	Y
Using or Equipping with Radar Detector	392.71A	Using or equipping a CMV with radar detector	N
Using Phone While Driving	177.804B	Failure to comply with 49 CFR Section 392.80 Texting While	Y

Unsafe Driving Violation Group	Federal Violation Code	Violation Code Description	CDL Disqualifying (Y/N)
		Operating a CMV When Transporting Select Agents or Toxins or HM Requiring Placarding	
Using Phone While Driving	177.804B2	Failure to comply with 49 CFR Section 392.80 Texting While Operating a CMV when transporting select agents or toxins or HM requirement Placarding	Y
Using Phone While Driving	177.804B3	Failure to comply with 49 CFR Section 392.82 Using a Handheld Mobile Phone While Operating a CMV when transporting select agents or toxins or HM requiring placard	Y
Using Phone While Driving	177.804C	Failure to comply with 49 CFR Section 392.82 Using a Handheld Mobile Phone While Operating a CMV When Transporting Select Agents or Toxins or HM Requiring Placard	Y
Using Phone While Driving	390.17-DT	Operating a CMV while texting	Y
Using Phone While Driving	392.2-SLLT	State/Local Laws - Operating a CMV while texting	Y
Using Phone While Driving	392.80A	Driving a commercial motor vehicle while Texting	Y
Using Phone While Driving	392.82A1	Using a hand-held mobile telephone while operating a CMV	Y
Using Phone While Driving	392.82A2	Allowing or requiring a driver to use a hand-held mobile telephone while operating a CMV	Y

HOS Compliance

Table 25: HOS Compliance Violation Groups

HOS Compliance Violation Group	Federal Violation Code	Violation Code Description
AOBRD Requirements Not Met	395.15B	Onboard recording device information requirements not met
AOBRD Requirements Not Met	395.15F	Onboard recording device failure: Driver failed to reconstruct info
ELD or AOBRD Display and Documentation	395.15B2	Automatic on-board recording device failed to provide means to immediately check driver's hours of service as required.
ELD or AOBRD Display and Documentation	395.15G	Onboard recording device info not available
ELD or AOBRD Display and Documentation	395.15G01	Driver failed to have instructions on-board CMV for installed automatic on-board recording device.
ELD or AOBRD Display and Documentation	395.15G02	Driver failed to have on-board a CMV a sufficient supply of blank records of duty status graph-grids.
ELD or AOBRD Display and Documentation	395.15I5	Onboard recording device does not display required information
ELD or AOBRD Display and Documentation	395.15I9	Driver not adequately trained in the operation of the automatic on-board recording device.
ELD or AOBRD Display and Documentation	395.20B	The ELDs display screen cannot be viewed outside of the commercial motor vehicle.
ELD or AOBRD Display and Documentation	395.22A	Operating with a device that is not registered with FMCSA
ELD or AOBRD Display and Documentation	395.22B2II	Motor carrier failed to include required user identification data in ELD account
ELD or AOBRD Display and Documentation	395.22G	Portable ELD not mounted in a fixed position and visible to driver
ELD or AOBRD Display and Documentation	395.22H1	Driver failing to maintain ELD user's manual
ELD or AOBRD Display and Documentation	395.22H2	Driver failing to maintain ELD instruction sheet
ELD or AOBRD Display and Documentation	395.22H3	Driver failed to maintain instruction sheet for ELD malfunction reporting requirements

HOS Compliance Violation Group	Federal Violation Code	Violation Code Description
ELD or AOBRD Display and Documentation	395.22H4	Driver failed to maintain supply of blank drivers records of duty status graph-grids
ELD or AOBRD Display and Documentation	395.26B	Motor carrier failed to ensure that the ELD automatically recorded the required data elements.
Failing to Enter Required Data Element	395.15D2	Driver failed to produce location identifier codes for AOBRD as required.
Failing to Enter Required Data Element	395.24C1I	Driver failed to make annotations when applicable
Failing to Enter Required Data Element	395.24C1II	Driver failed to manually add location description
Failing to Enter Required Data Element	395.24C1III	Driver failed to add file comment per safety officers request
Failing to Enter Required Data Element	395.24C2I	Driver failed to manually add CMV power unit number
Failing to Enter Required Data Element	395.24C2II	Driver failed to manually add the trailer number
Failing to Enter Required Data Element	395.24C2III	Driver failed to manually add shipping document number
Failing to Enter Required Data Element	395.28	Driver failed to select/deselect or annotate a special driving category or exempt status
Failing to Enter Required Data Element	395.30B1	Driver failed to certify the accuracy of the information gathered by the ELD
Failing to Enter Required Data Element	395.30C	Failing to follow the prompts from the ELD when editing/adding missing information
Failing to Record Significant Log Data	395.8A	No drivers record of duty status when one is required
Failing to Record Significant Log Data	395.8A1	Not using the appropriate method to record hours of service
Failing to Record Significant Log Data	395.8A-ELD	ELD - No record of duty status (ELD Required)
Failing to Record Significant Log Data	395.8A-NON-ELD	No record of duty status when one is required (ELD Not Required)
Failing to Record Significant Log Data	395.8F01	Drivers record of duty status not current

HOS Compliance Violation Group	Federal Violation Code	Violation Code Description
Failing to Record Significant Log Data	395.8F1	Driver's record of duty status not current
Failing to Record Significant Log Data	395.8K2	Driver failing to retain previous 7 days records of duty status
Failing to Record Significant Log Data	395.15A2	Driver failed to use automatic on-board recording device when required by the motor carrier.
Failing to Record Significant Log Data	395.32B	Driver failed to assume or decline unassigned driving time
Failing to Record Significant Log Data	395.34A1	Failing to note malfunction that requires use of paper log
False Logs	395.8E	False report of drivers record of duty status
False Logs	395.8E1-PC	False Record of Duty Status - Improper use of Personal Conveyance Exception
False Logs	395.11G	Failing to provide supporting documents in the driver's possession upon request
Fatigued Driving	392.3	Operating a CMV while ill or fatigued
Fatigued Driving	392.3-FPASS	Fatigue - Operate a passenger-carrying CMV while impaired by fatigue.
Fatigued Driving	392.3-FPROP	Fatigue - Operate a property-carrying CMV while impaired by fatigue.
Fatigued Driving	392.3-I	Illness - Operate a CMV while impaired by illness or other cause.
Form and Manner	395.8	Record of Duty Status violation (general/form and manner)
Form and Manner	395.15C	Onboard recording device improper form and manner
HOS Requirements	392.2H	State/Local Hours of Service
HOS Requirements	395.1H1	Violation of 15, 20, 70/80 Hours of Service rules for Alaska drivers of Property
HOS Requirements	395.1H2	Violation of 15, 20, 70/80 Hours of Service rules for Alaska drivers of Passengers

HOS Compliance Violation Group	Federal Violation Code	Violation Code Description
HOS Requirements	395.3A1/R	11 hour rule violation (Property)
HOS Requirements	395.3A2/R	14 hour rule violation (Property)
HOS Requirements	395.3A2-PROP	Driving beyond 14 hour duty period (Property carrying vehicle)
HOS Requirements	395.3A3II	Driving beyond 8 hour driving limit since the end of the last on duty, off duty, or sleeper period of at least 30 minutes
HOS Requirements	395.3A3-PROP	Driving beyond 11 hour driving limit. (Property Carrying Vehicle)
HOS Requirements	395.3B/R	60/70 - hour rule violation (Property)
HOS Requirements	395.3B1-PROP	Driving after 60 hours on duty in a 7 day period. (Property carrying vehicle)
HOS Requirements	395.3B2	Driving after 70 hours on duty in an 8 day period. (Property carrying vehicle)
HOS Requirements	395.5A1	10 - hour rule violation (Passenger)
HOS Requirements	395.5A1-PASS	Driving after 10 hour driving limit (Passenger carrying vehicle)
HOS Requirements	395.5A2	15 - hour rule violation (Passenger)
HOS Requirements	395.5A2-PASS	Driving after 15 hours on duty (Passenger carrying vehicle)
HOS Requirements	395.5B1-PASS	Driving after 60 hours on duty in a 7 day period. (Passenger carrying vehicle)
HOS Requirements	395.5B2-PASS	Driving after 70 hours on duty in an 8 day period. (Passenger carrying vehicle)
HOS Requirements	398.6	Violation of Hours of Service regulations for Transportation of Migrant Workers
HOS Requirements - Nominal	395.3A2-PROPN	Driving beyond 14 hour duty period (Property carrying vehicle) - Nominal Violation

HOS Compliance Violation Group	Federal Violation Code	Violation Code Description
HOS Requirements - Nominal	395.3A3-PROPN	Driving beyond 11 hour driving limit in a 14 hour period. (Property carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.3B1-PROPN	Driving after 60 hours on duty in a 7 day period. (Property carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.3B2-NOM	Driving after 70 hours on duty in an 8 day period. (Property carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.5A1-PASSN	Driving after 10 hour driving limit (Passenger carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.5A2-PASSN	Driving after 15 hour driving limit (Passenger carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.5B1-PASSN	Driving after 60 hours on duty in a 7 day period. (Passenger carrying vehicle) - Nominal Violation
HOS Requirements - Nominal	395.5B2-PASSN	Driving after 70 hours on duty in an 8 day period. (Passenger carrying vehicle) - Nominal Violation

Vehicle Maintenance

Table 26: Vehicle Maintenance Violation Groups

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
Brakes	393.40	Inadequate brake system on a CMV
Brakes	393.41	No or defective parking brake system on CMV
Brakes	393.43	No/improper breakaway or emergency braking
Brakes	393.43D	No or defective automatic trailer brake
Brakes	393.45	Brake tubing and hose adequacy
Brakes	393.45A-AJS	Air Brake tubing improperly joined or spliced
Brakes	393.45A-HBL	Hydraulic Brake - leaking on application
Brakes	393.45A-HJS	Hydraulic Brake tubing improperly joined or spliced
Brakes	393.45B2UV	Brake Hose or Tubing Chafing and/or Kinking Under Vehicle
Brakes	393.45B3	Brake hose or tubing contacting exhaust system
Brakes	393.45D	Brake connections with leaks or constrictions
Brakes	393.45DCUV	Brake Connections with Constrictions Under Vehicle
Brakes	393.45UV	Brake Tubing and Hose Adequacy Under Vehicle
Brakes	393.47A	Inadequate brakes for safe stopping - Brake Lining condition
Brakes	393.47A-CD	Brake drum with external crack or crack that opens upon application
Brakes	393.47A-CR	Rotor (disc) cracked more than 75 percent of the friction surface completely through the rotor or

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
		completely through a solid rotor or completely through a structural support
Brakes	393.47A-RM	Brake rotor or drum - piece missing or in danger of falling away
Brakes	393.47A-RW	Brake rotor worn to or through center vents
Brakes	393.47C	Mismatched slack adjuster effective length
Brakes	393.47G	Insufficient Brake Drum or Rotor thickness
Brakes	393.48A	Inoperative/defective brakes
Brakes	393.48A-BCM	Brakes - Hydraulic Brake Caliper movement exceeds 1/8" (0.125") (3.175 mm)
Brakes	393.48A-BMBC	All Brakes - Missing or Broken Components including Pad Retaining Components and loose or missing caliper mounting bolt(s)
Brakes	393.48A-BRMMC	Brakes - Rotor (disc) metal-to-metal contact
Brakes	393.48A-BS	Brake - Smoking
Brakes	393.48A-BSRFS	Brakes - Severe rusting of brake rotor (disc)
Brakes	393.50	Inadequate reservoir for air/vacuum brakes
Brakes	393.50A	Failing to have sufficient air/vacuum reserve
Brakes	393.50B	Failing to equip vehicle air brake system with adequate reserve capacity or reservoir
Brakes	393.50C	No means to ensure operable check valve
Brakes	393.50D	No/Defective air reservoir drain valve

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
Brakes	393.53B	CMV manufactured after 10/19/94 has an automatic airbrake adjustment system that fails to compensate for wear
Brakes	393.53BMAN	CMV manufactured after 10/20/1994 is not equipped with automatic air brake adjusters.
Brakes	393.53C	No or Defective Brake Adjustment Indicator on Air Brake System for vehicle manufactured after 10/19/1994
Brakes	393.55A	ABS required on all CMVs with hydraulic brakes manufactured after February 1999
Brakes	393.55B	ABS malfunction indicators for hydr brake sys
Brakes	393.55C1	Truck Tractor manufactured on or after March 1, 1997, not equipped with an antilock brake system.
Brakes	393.55C2	CMV other than truck-tractor manufactured on or after March 1, 1998, not equipped with an antilock brake system.
Brakes	393.55D1	CMV not equipped with ABS malfunction circuit or signal (Truck-Tractor mfg on/after 3/1/1997; Straight Truck mfg on/after 3/1/1998)
Brakes	393.55D2	CMV manufactured on/after 3/1/2001 not equipped with ABS malfunction circuit / lamp from towed vehicle in cab.
Brakes	393.55D3	No or Defective ABS Malfunction Indicator for towed vehicles on vehicles manufactured after February 2001
Brakes	396.3A1-AR	Brake - Defective Air Reservoir
Brakes	396.3A1BC	Brake-air compressor violation
Brakes	396.3A1BD	Brake-defective brake drum
Brakes	396.3A1-BFL	Brakes - Hydraulic Brake Failure Light missing, inoperative, or stays activated
Brakes	396.3A1BL	Brake system pressure loss

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
Brakes	396.3A1-BPA	Brakes - Hydraulic Brake Power Assist / Power Brake Unit / Brake Backup System Inoperative
Brakes	396.3A1-CH	Brake - Hole in Spring Brake Housing
Brakes	396.3A1-LC	Brake - Leak from air chamber
Brakes	396.3A1-MCF	Brakes - Hydraulic Fluid level in Master Cylinder low
Brakes - Out of Adjustment	393.47E	Clamp or Roto type brake out-of-adjustment
Brakes - Out of Adjustment	393.47F	Wedge type brake(s) out-of-adjustment
Brakes - Out of Adjustment	396.3A1BA	Bolt-type or DD-3 -type Brake Out of Adjustment
Brakes - Out of Service	396.3A1BOS	BRAKES OUT OF SERVICE: The number of defective brakes is equal to or greater than 20 percent of the service brakes on the vehicle or combination
Drive Shaft	393.89	Bus driveshaft not properly protected
Drive Shaft	396.3A1DSCB	Center Bearing (Carrier Bearing) Cracked / Loose / Broken / Missing
Drive Shaft	396.3A1DSDT	Drive Shaft Tube Cracked or Twisted
Drive Shaft	396.3A1DSUJ	Universal Joint with Loose, Broken, or Missing Component, or Bearing Strap
Drive Shaft	396.3A1DSYE	Drive Shaft Yoke Ends Cracked / Loose / Broken / Missing
Failing to Correct DVIR Defects	396.9D2	Failure to correct defects noted on previous inspection report
Failing to Display CVSA Decal	385.103C	Failure to display a current CVSA decal: Mexico-domiciled carrier with Provisional Operating Authority
Failing to Maintain Vehicle	396.3A1	Inspection, repair and maintenance of parts and accessories

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
Fuel System	393.65	Fuel system requirements
Fuel System	393.67	Fuel tank requirement violations
Fuel System	393.67C8	Improper fuel tank safety vent
Lighting	393.24D	Improper Head / Auxiliary / Fog lamp aiming
Lubrication	396.5A	Failing to ensure that vehicle is properly lubricated
Lubrication	396.5B	Oil and/or grease leak
No Proof of Periodic Inspection	396.17C	Operating a CMV without proof of a periodic inspection
Rear Impact Guard	393.86A1	Rear Impact Guards Required - trailer manufactured on or after January 26, 1998
Rear Impact Guard	393.86A2	Rear Impact Guard having improper width - trailer manufactured on or after January 26, 1998
Rear Impact Guard	393.86A3	Rear Impact Guard having improper height - trailer manufactured on or after January 26, 1998
Rear Impact Guard	393.86A4	Rear Impact Guard not within 12 in of rear of vehicle at 22 in above the ground
Rear Impact Guard	393.86A5	Rear Impact Guard Cross-section vertical height insufficient for trailer manufactured on or after January 26, 1998
Rear Impact Guard	393.86B1	Rear Impact Guard Required - motor vehicle manufactured after 12/31/1952 (see exceptions)
Suspension System	393.207A	Axle positioning parts defective/missing
Suspension System	393.207C	Leaf spring assembly defective/missing
Suspension System	393.207D	Coil spring cracked and/or broken

Vehicle Maintenance Violation Group	Federal Violation Code	Violation Code Description
Suspension System	393.207F	Air suspension pressure loss
Suspension System	393.207G	No / defective air suspension exhaust control
Unsafe Vehicle Transporting Migrant Workers	398.5	Failure to maintain vehicle for safe operation - Transportation of Migrant Workers
Unsafe Vehicle Transporting Migrant Workers	398.7	Inspection and Maintenance of motor vehicles used for Transportation of Migrant Workers
Wheel	396.5A-HNLIW	Hubs - No visible or measurable lubricant showing in the hub - inner wheel
Wheel	396.5B-HLIW	Hubs - Oil and/or Grease Leaking from hub - inner wheel
Wheel	396.5B-HWSLIW	Hubs - Wheel seal leaking - inner wheel

Vehicle Maintenance: Driver Observed

Table 27: Vehicle Maintenance: Driver Observed Violation Groups

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Brakes - Driver Observed	393.40B	Brakes - no pedal reserve
Brakes - Driver Observed	393.42	No brakes as required - Explain:
Brakes - Driver Observed	393.42A-BM	Brake - Missing required brake.
Brakes - Driver Observed	393.42A-BMAW	Brake - All wheels not equipped with brakes as required.
Brakes - Driver Observed	393.42A-BM-TSA	Brake - Missing on a trailer steering axle.
Brakes - Driver Observed	393.43A	No/improper tractor protection valve
Brakes - Driver Observed	393.44	No or defective bus front brake line protection
Brakes - Driver Observed	393.45B2	Brake hose or tubing chafing and/or kinking
Brakes - Driver Observed	393.45B2PC	Brake Hose or Tubing Chafing and/or Kinking - Connection to Power Unit
Brakes - Driver Observed	393.45DCPC	Brake Connections with Constrictions - Connection to Power Unit
Brakes - Driver Observed	393.45DLPC	Brake Connections with Leaks - Connection to Power Unit
Brakes - Driver Observed	393.45DLUV	Brake Connections with Leaks Under Vehicle
Brakes - Driver Observed	393.45PC	Brake Tubing and Hose Adequacy - Connections to Power Unit
Brakes - Driver Observed	393.47B	Mis-matched brake chambers on same axle
Brakes - Driver Observed	393.47D	All Brakes - Insufficient brake lining thickness
Brakes - Driver Observed	393.48B1	Defective brake limiting device

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Brakes - Driver Observed	393.51	No or defective brake warning device or pressure gauge
Brakes - Driver Observed	393.52A1	Insufficient Braking Force as a Percentage of Gross Vehicle Weight or Gross Combination Weight
Brakes - Driver Observed	393.53A	No Automatic Brake Adjuster for Hydraulic Brake Systems for vehicle manufactured on or after 10/20/1993
Brakes - Driver Observed	393.55E	No or Defective ABS Malfunction Indicator Lamp for trailer manufactured after 03/01/1998
Brakes - Driver Observed	396.3A1B	Brakes (general) Explain:
Bus Egress	392.62C1	Bus - baggage/freight restricts driver oper
Bus Egress	392.62C2	Bus - Exit(s) obstructed by baggage/freight
Bus Egress	392.62C3	Passengers not protected from falling baggage
Bus Egress	393.62A	No or Defective bus emergency exits
Bus Egress	393.62B	No or defective bus emergency exits, manufactured on or after 9/1/1973 but before 9/1/1994
Bus Egress	393.62C	No or Defective bus emergency exit windows
Bus Egress	393.62D	No or Defective Safety glass and/or push-out window
Bus Egress	393.62E	No or inadequate bus emergency exit marking
Bus Interior	393.90	Bus-no or obscure standee line
Bus Interior	393.91	Bus - improper aisle seats
Bus Interior	393.91-FS	Motor Coach or other Passenger carrying vehicle equipped with prohibited non-automatically folding seats in the aisle

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Bus Interior	393.91-SNS	Motor Coach or other Passenger Carrying vehicle operating with seating, occupied or not, not secured in a workmanlike manner.
Bus Interior	393.93A3	Seats not secured in conformance with FMVSS
Clearance Lamp	393.9	Inoperable Required Lamp
Clearance Lamp	393.23	Required lamp not powered by vehicle electric
Clearance Lamp	393.23PT	All required lamps on towed vehicle inoperative due to no electrical connection
Coupling Device	393.70	Fifth wheel
Coupling Device	393.70A	Defective coupling device-improper tracking
Coupling Device	393.70B	Defective/improper fifth wheel assemblies
Coupling Device	393.70B1I	Defective latching fasteners - Fasteners on either side of the vehicle are missing or ineffective
Coupling Device	393.70B1I-C	Fifth wheel cracked or a gap caused by corrosion 1/8 inch (3.2 mm) or more in width.
Coupling Device	393.70B1II	Defective / Improper fifth wheel assembly upper half
Coupling Device	393.70B1II-FWCM	Fifth wheel - any movement between components
Coupling Device	393.70B1II-FWUC	Upper coupler assembly parent metal cracked, extending more than 20 percent of the distance across the metal in the direction of the crack.
Coupling Device	393.70B1II-FWUCG	Upper coupler assembly crack or gap caused by corrosion more than 1/8 inch (3.2 mm) or more in width.
Coupling Device	393.70B1II-FWUCW	Upper coupler assembly welds are crack on either side, front or back of the upper coupler, more than 20 percent of the total length of all original welds.
Coupling Device	393.70B1II-FWURW	Upper coupler assembly repair weld cracked.

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Coupling Device	393.70B1I-MPC	Crack in the mounting plate or pivot bracket (parent metal) extending more than 20 percent of the distance across the metal in the direction of the crack.
Coupling Device	393.70B1I-RW	Fifth Wheel repair weld is cracked
Coupling Device	393.70B1I-SC	Slide curl broken, cracked or repaired by welding
Coupling Device	393.70B1I-W	Fifth wheel more than 20 percent of the total length of all the original welds are cracked on either side of the vehicle.
Coupling Device	393.70B2	Defective fifth wheel locking mechanism
Coupling Device	393.70B2-ENGAGED	Kingpin not properly engaged
Coupling Device	393.70C	Defective coupling devices for full trailer
Coupling Device	393.70D	No or improper safety chains or cables for full trailer
Coupling Device	393.70D8	Improper safety chain attachment
Coupling Device	393.71	Improper coupling driveaway/towaway operation
Coupling Device	393.71B3	Improper weight distribution drive-away/towaway
Coupling Device	393.71G	Prohibited towing connection / device
Coupling Device	393.71H	Towbar requirement violations
Coupling Device	393.71H10	No or Improper safety chains for towbar
Coupling Device	393.71J-SMU	Upper Saddlemount - Missing Fasteners, loose, cracked, or excessive movement
Coupling Device	393.71K-SML	Lower Saddlemount - Missing Fasteners, loose, cracked, or excessive movement

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Coupling Device	396.3A1-CD	C-Dolly - Defective / Missing Locks - not centered
Coupling Device	396.3A1-CDST	Defective coupling devices for semi-trailer.
Coupling Device	396.3A1-FWMOV	Fifth wheel- Movement exceeds 1/2 inch
Coupling Device	396.3A1-FWPC	Crack in the fifth wheel plate (parent metal) extending more than 20 percent of the distance across the metal in the direction of the crack.
Coupling Device	396.3A1-FWPG	A crack or gap caused by corrosion that is 1/8 inch (3.2 mm) or more in width in fifth wheel plate.
Coupling Device	396.3A1-FWPRW	Repair weld cracked on fifth wheel plate
Driver Visibility Obstructed	392.9A3	Drivers view and/or movement is obstructed
Driver Visibility Obstructed	393.60B	Each bus and truck shall be equipped with a windshield
Driver Visibility Obstructed	393.60C	Damaged or discolored windshield
Driver Visibility Obstructed	393.60D	Glazing permits < 70% of light
Driver Visibility Obstructed	393.60E-WS	Windshield - Obstructed
Driver Visibility Obstructed	393.61	Inadequate or missing truck side windows
Driver Visibility Obstructed	393.78	Windshield wipers inoperative/defective
Driver Visibility Obstructed	393.79	Defroster / Defogger inoperative
Driver Visibility Obstructed	393.80	No or defective rear-vision mirror
Driver Visibility Obstructed	393.88	Improperly located tv receiver

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Electrical System	393.28	Improper or no wiring protection as required
Electrical System	393.30	Improper battery installation
Electrical System	396.3A1-EC	Bus - Electrical Mountings broken or unsecured
Emergency Equipment	392.8	Failing to inspect/use emergency equipment
Emergency Equipment	392.22B	Failure to place or improper placement of warning devices on the road surface
Emergency Equipment	393.95A	No/discharged/unsecured fire extinguisher
Emergency Equipment	393.95A1I	Failure to equip hazardous material vehicle with a fire extinguisher with a minimum UL rating of 10 B:C
Emergency Equipment	393.95B	No spare fuses as required
Emergency Equipment	393.95F	No / insufficient warning devices
Emergency Equipment	393.95G	HM-restricted emergency warning device
Exhaust System	393.83A	Exhaust system location
Exhaust System	393.83B	Exhaust discharge fuel tank/filler tube
Exhaust System	393.83C	Improper exhaust - Bus (Powered by gasoline)
Exhaust System	393.83D	Improper exhaust - Bus (Powered by other than Gasoline)
Exhaust System	393.83E	Improper exhaust discharge (not rear of cab)
Exhaust System	393.83F	Improper exhaust system repair (patch/wrap)
Exhaust System	393.83G	Exhaust leak under driver and/or sleeper compartment

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Exhaust System	393.83H	Exhaust system not securely fastened
Exterior of Vehicle	393.201A	Frame cracked / loose / sagging / broken
Exterior of Vehicle	393.201B	Bolts securing cab broken/loose/missing
Exterior of Vehicle	393.201C	Frame rail flange improperly bent/cut/notched other than by vehicle manufacturer
Exterior of Vehicle	393.201D	Frame accessories improperly attached
Exterior of Vehicle	393.201E	Prohibited holes drilled in frame rail flange
Exterior of Vehicle	393.203	Cab/body parts requirements violations
Exterior of Vehicle	393.203A	Cab door missing/broken
Exterior of Vehicle	393.203B	Cab/body improperly secured to frame
Exterior of Vehicle	393.203C	Hood not securely fastened
Exterior of Vehicle	393.203E	Cab front bumper missing/unsecured/protrude
Exterior of Vehicle	399.207	Vehicle access requirements violations
Failing to Secure Load	392.9	Driver may not operate a CMV without proper load securement
Failing to Secure Load	392.9A	Failing to secure load
Failing to Secure Load	392.9A1	Failing to secure cargo as specified in 49 CFR 393.100 through 393.142
Failing to Secure Load	392.9A2	Failing to secure vehicle equipment
Failing to Secure Load	393.100	Failure to prevent cargo shifting

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.100A	No or improper load securement
Failing to Secure Load	393.100C	Failure to prevent cargo shifting
Failing to Secure Load	393.102A	Improper securement system (tiedown assemblies)
Failing to Secure Load	393.102A1I	Insufficient means to prevent forward movement
Failing to Secure Load	393.102A1II	Insufficient means to prevent rearward movement
Failing to Secure Load	393.102A1III	Insufficient means to prevent lateral movement
Failing to Secure Load	393.102B	Insufficient means to prevent vertical movement
Failing to Secure Load	393.102C	Exceeding working load limit for tiedowns
Failing to Secure Load	393.104A	Inadequate/damaged securement device/system
Failing to Secure Load	393.104B	Damaged securement system/tiedowns
Failing to Secure Load	393.104C	Damaged vehicle structures/anchor points
Failing to Secure Load	393.104D	Damaged dunnage, chocks, cradles, shoring bars, blocking and bracing
Failing to Secure Load	393.104F1	Knotted tiedown
Failing to Secure Load	393.104F2	Use of tiedown with improper repair.
Failing to Secure Load	393.104F3	Loose or unfastened tiedown.
Failing to Secure Load	393.104F4/R	No edge protection for tiedowns
Failing to Secure Load	393.106A	No/improper front end structure/headerboard

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.106B	Cargo not immobilized or secured
Failing to Secure Load	393.106C1	No means to prevent cargo from rolling
Failing to Secure Load	393.106C2	Cargo without direct contact not prevented from shifting while in transit
Failing to Secure Load	393.106D	Insufficient aggregate working load limit
Failing to Secure Load	393.110	Failing to meet minimum tiedown requirements
Failing to Secure Load	393.110B	Insufficient tiedowns to prevent forward movement for load not blocked by headerboard, bulkhead, or other cargo.
Failing to Secure Load	393.110C	Insufficient tiedowns for an article blocked with a headerboard, bulkhead, or other cargo
Failing to Secure Load	393.110D	Large or odd-shaped cargo not adequately secured
Failing to Secure Load	393.112	Tiedown not adjustable by driver
Failing to Secure Load	393.114	No/improper front end structure
Failing to Secure Load	393.114B1	Insufficient height for front-end structure
Failing to Secure Load	393.114B2	Insufficient width for front-end structure
Failing to Secure Load	393.114D	Front-end structure insufficient to prevent cargo to pass through it.
Failing to Secure Load	393.116	No/improper securement of logs
Failing to Secure Load	393.116D1	Shortwood log extends more than 1/3 of logs total length beyond supporting structure of vehicle
Failing to Secure Load	393.116D2	Insufficient tiedowns for shortwood loaded crosswise

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.116D3	Tiedowns improperly positioned on load of shortwood
Failing to Secure Load	393.116D4	No center stakes and/or high log not secured on shortwood vehicles more than 10m (33ft) long
Failing to Secure Load	393.116E	Improper Securement of shortwood logs loaded lengthwise
Failing to Secure Load	393.118	No/improper lumber/building materials securement
Failing to Secure Load	393.118B	Improper placement of bundles
Failing to Secure Load	393.118D	Insufficient protection against lateral movement of lumber or building materials
Failing to Secure Load	393.118D3	Insufficient or improper arrangement of tiedowns for lumber or building materials
Failing to Secure Load	393.120	No or improper securement of metal coils
Failing to Secure Load	393.120B1	Improper securement of metal coils transported vertically
Failing to Secure Load	393.120B2	Improper securement of metal coils transported in rows with the eyes vertical
Failing to Secure Load	393.120C1	Improper securement of metal coils transported with eyes crosswise
Failing to Secure Load	393.120C2	Prohibited load securement - crossing tie-downs in a X pattern through the eye of a metal coil transported crosswise
Failing to Secure Load	393.120D1	Improper securement of metal coil transported with eye lengthwise
Failing to Secure Load	393.120D4	Improper securement of metal coils transported in rows, eyes lengthwise to the vehicle
Failing to Secure Load	393.120E	No protection against shifting or tipping of metal coils transported in sided vehicle or intermodal container without anchor points
Failing to Secure Load	393.122	No/improper securement of paper rolls

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.122B	Improper securement of paper rolls transported with eyes vertical in a sided vehicle
Failing to Secure Load	393.122C	Improper securement of split loads of paper rolls transported with the eyes vertical in a sided vehicle
Failing to Secure Load	393.122D	Improper securement of stacked loads of paper rolls transported with the eyes vertical in a sided vehicle
Failing to Secure Load	393.122E	Improper securement of paper rolls transported with the eyes crosswise in a sided vehicle
Failing to Secure Load	393.122F	Improper securement of stacked loads of paper rolls transported with eyes crosswise in a sided vehicle
Failing to Secure Load	393.122G	Improper securement of paper rolls transported with the eyes lengthwise in a sided vehicle
Failing to Secure Load	393.122H	Improper securement of stacked loads of paper rolls transported with the eyes lengthwise in a sided vehicle
Failing to Secure Load	393.122I	Improper securement of paper rolls transported on a flatbed vehicle or in a curtain-sided vehicle
Failing to Secure Load	393.124	No or improper securement of concrete pipe
Failing to Secure Load	393.124B	Insufficient working load limits for tiedowns on a group of concrete pipes
Failing to Secure Load	393.124C	Improper blocking of concrete pipe
Failing to Secure Load	393.124D	Improper arrangement of concrete pipe
Failing to Secure Load	393.124E	Improper securement of concrete pipe with an inside diameter up to 45 inches (1143 mm)
Failing to Secure Load	393.124F	Improper securement of concrete pipe with an inside diameter greater than 45 inches (1143 mm)
Failing to Secure Load	393.126	Failure to ensure intermodal container securement
Failing to Secure Load	393.126B	Damaged or Missing tiedown or securement device for intermodal containers transported on container chassis vehicle

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.126C1	Lower corners of loaded intermodal container not resting on surface of transporting vehicle (non-container chassis)
Failing to Secure Load	393.126C2	All corners of loaded intermodal container not secured when transported on vehicle other than container chassis vehicle
Failing to Secure Load	393.126C3	Front and rear of loaded intermodal container not secured independently when transported on vehicle other than container chassis
Failing to Secure Load	393.126D1	Empty intermodal container not properly positioned when transported on vehicle other than container chassis vehicle
Failing to Secure Load	393.126D2	Empty intermodal container with more than 5 ft overhang when transported on vehicle other than container chassis vehicle
Failing to Secure Load	393.126D4	Empty intermodal container not properly secured to prevent shifting when transported on vehicle other than container chassis vehicle
Failing to Secure Load	393.128	No/improper securement of vehicles
Failing to Secure Load	393.128B1	Vehicle not secured, front and rear
Failing to Secure Load	393.128B2	Tiedown(s) not affixed to mounting points.
Failing to Secure Load	393.128B3	Tiedown(s) not over/around wheels.
Failing to Secure Load	393.130	No/improper heavy vehicle/machine securement
Failing to Secure Load	393.130B	Item not properly prepared for transport
Failing to Secure Load	393.130C	Improper restraint/securement of item
Failing to Secure Load	393.132	No/improper securement of crushed vehicles
Failing to Secure Load	393.132B	Prohibited use of synthetic webbing.

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Failing to Secure Load	393.132C	Insufficient tiedowns per vehicle stack of crushed cars
Failing to Secure Load	393.132C5	Insufficient means to retain loose parts or leaking liquids from crushed cars
Failing to Secure Load	393.134	No/improper securement of roll/hook container
Failing to Secure Load	393.134B1	No blocking against forward movement
Failing to Secure Load	393.134B2	Container not secured to front of vehicle
Failing to Secure Load	393.134B3	Rear of container not properly secured
Failing to Secure Load	393.136	No/improper securement of large boulders
Failing to Secure Load	393.136B	Improper placement/positioning for boulder
Failing to Secure Load	393.136C1	Use of synthetic webbing to secure boulder
Failing to Secure Load	393.136D	Improper secure; cubic boulder
Failing to Secure Load	393.136E	Improper secure; non-cubic boulder w/base
Failing to Secure Load	393.136F	Improper secure; non-cubic boulder w/o base
Falling Cargo	393.100B	Leaking/spilling/blowing/falling cargo
Fuel Leak	396.3A1-GDRVP	Vehicle with a dripping liquid that vaporizes in the air from an LNG fuel system.
Fuel Leak	396.3A1-GLEAK	Vehicle with fuel leakage from a CNG, LNG or LPG system verified by bubble test or gas detection meter.
Fuel Leak	396.3A1-GVAPOR	Vehicle with a cloud of vapor from an LNG fuel system.
Fuel Leak	396.3A1-LLEAK	A liquid fuel system with a dripping leak at any point.

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Fuel System - Driver Observed	393.65B	Improper location of fuel system
Fuel System - Driver Observed	393.65C	Improper securement of fuel tank
Fuel System - Driver Observed	393.65F	Improper fuel line protection
Fuel System - Driver Observed	393.67C7	Fuel tank fill pipe cap missing
Fuel System - Driver Observed	393.68	CNG Fuel Container does not conform to regulations
Heater	393.77	Defective and/or prohibited heaters
Heater	393.77B11	Improper location of bus heater fuel tank
Heater	393.77B5	Tampering with bus heater
Horn	393.81	Horn inoperative
Improper Tire	393.75D	Regrooved or recapped tire on front wheel of bus
Improper Tire	393.75E	Regrooved Tire on front of truck or truck-tractor
Improper Tire	393.75F-SPEED	Operating a CMV at speeds exceeding the speed-restriction label of the tire.
Improper Tire	396.3A1-TM	Tires - Not for Highway User used on Steering Axle
Insufficient Knowledge of FMCSRs	396.1	Must have knowledge of and comply with the Federal Motor Carrier Safety Regulations
Interior of Vehicle	393.84	Inadequate floor condition
Interior of Vehicle	393.93B3	Temporary Seating - Vehicle must conform to the requirements of Federal Motor Vehicle Safety Standard No. 2071 (º571.207)

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Interior of Vehicle	393.203D	Cab seats not securely mounted
Interior of Vehicle	399.211	Inadequate maintenance of driver access
Lighting - Driver Observed	392.33	Operating CMV with lamps/reflectors obscured
Lighting - Driver Observed	393.17	No/defective lamp/reflector-towaway operation
Lighting - Driver Observed	393.17A	No/defective lamps-towing unit-towaway operation
Lighting - Driver Observed	393.17B	No/defective towaway lamps on rear unit
Lighting - Driver Observed	393.19	Inoperative/Defective Hazard Warning Lamp
Lighting - Driver Observed	393.24A	Non-compliance with headlamp requirements
Lighting - Driver Observed	393.24B	Noncompliant fog/driving lamps
Lighting - Driver Observed	393.24B/R	Non-compliant fog or driving lamps
Lighting - Driver Observed	393.24C	Improper Headlamp mounting
Lighting - Driver Observed	393.25A	Improper Lamp Mounting
Lighting - Driver Observed	393.25B	Lamps are not visible as required
Lighting - Driver Observed	393.25E	Lamp not steady burning
Lighting - Driver Observed	393.25F	Stop lamp violations
Lighting - Driver Observed	393.9BRKLAMP	Inoperative Brake Lamps
Lighting - Driver Observed	393.9H	Inoperable head lamps

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Lighting - Driver Observed	393.9T	Inoperable tail lamp
Lighting - Driver Observed	393.9TS	Inoperative turn signal
No or Improper DVIR	396.11	No or inadequate driver vehicle inspection report
No or Improper DVIR	396.13C	No reviewing driver signature on DVIR
No or Incomplete Pre-Trip Inspection	392.7	No pre-trip inspection
No or Incomplete Pre-Trip Inspection	392.7A	Driver failing to conduct pre-trip inspection
No or Incomplete Pre-Trip Inspection	392.7B	Driver failing to conduct a pre-trip inspection of Intermodal Equipment
No or Incomplete Pre-Trip Inspection	397.17	Failure to examine tires on hazmat vehicle before trip
Reflective Sheeting	393.11	No or defective lighting devices or reflective material as required
Reflective Sheeting	393.11LR	No Lower rear retroreflective sheeting or reflex reflective materials as required for vehicles manufactured after December 1993
Reflective Sheeting	393.11N	No retroreflective sheeting or reflex reflective materials as required for vehicles manufactured after December 1993
Reflective Sheeting	393.11RT	Retroreflective material not affixed as required for trailers manufactured after December 1993
Reflective Sheeting	393.11S	Side retroreflective sheeting or reflex reflector requirements for vehicles manufactured after December 1993
Reflective Sheeting	393.11TL	Truck-Tractor lower rear mud flaps retroreflective sheeting / reflex reflective material requirements for vehicles manufactured after July 1997
Reflective Sheeting	393.11TT	Truck-Tractor with No retroreflective sheeting or reflex reflective material on vehicle manufactured after July 1997

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Reflective Sheeting	393.11TU	Truck-Tractor upper body corner requirements for retroreflective sheeting or reflex reflective material for vehicles manufactured after July 1997
Reflective Sheeting	393.11UR	Upper Rear retroreflective sheeting or reflex reflecting material requirements for vehicles manufactured after December 1993
Reflective Sheeting	393.13A	Retroreflective tape not affixed as required for Trailers manufactured prior to December 1993
Reflective Sheeting	393.13B	No retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.13C1	No Side retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.13C2	No Lower Rear retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.13C3	No Upper Rear retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.13D1	Improper Side Placement of retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.13D2	Improper Lower Rear Placement of retroreflective sheeting or reflex reflective material requirements for vehicles manufactured before December 1993
Reflective Sheeting	393.13D3	Upper rear retroreflective sheeting or reflex reflective material as required for vehicles manufactured before December 1993
Reflective Sheeting	393.26	Requirements for reflectors
Riding in Vehicle with No Exit	392.63	Pushing/towing a loaded bus
Riding in Vehicle with No Exit	392.64	Riding within the closed body of a commercial vehicle without exits
Seat Belt Missing	393.93A	Failure to equip bus with seat belts

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Seat Belt Missing	393.93B	Failure to equip truck with seatbelts
Sleeper Berth	393.76	Sleeper berth requirement violations
Speedometer	393.82	Speedometer inoperative / inadequate
Steering System	393.209A	Steering wheel not secured/broken
Steering System	393.209B	Excessive steering wheel lash
Steering System	393.209C	Loose steering column
Steering System	393.209D	Steering system components worn, welded, or missing
Steering System	393.209E	Power steering violations
Steering System	396.3A1-FA	Front Axle and any other steering components cracked/repair welded
Steering System	396.3A1-PAW	Pitman Arm - welded / missing nuts
Steering System	396.3A1-SGB	Steering Gear Box - welded
Steering System	396.3A1-SSF	Sliding subframe rail defective
Steering System	396.3A1-TRDL	Tie Rods / Drag Links - Defective Clamps / Holes / Missing nuts
Steering System	396.3A1-TS	Tilt or Telescopic Steering defective
Suspension System - Driver Observed	393.207B	Adjustable axle locking pins missing or not engaged
Suspension System - Driver Observed	393.207E	Torsion bar cracked and/or broken
Tire - Exceeding Weight Rating	393.75F	Tire — exceeding weight rating of tire

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Tire - Exceeding Weight Rating	393.75F1	Weight carried exceeds tire load limit
Tire - Exceeding Weight Rating	393.75F2	Tire underinflated
Tire - Exceeding Weight Rating	393.75G-LOAD	Weight carried exceeds tire load limit
Tire - Exceeding Weight Rating	393.75H	Tire underinflated
Tire - Exceeding Weight Rating	393.75I1	Operating a CMV while weight carried exceeds tire rating due to under-inflation
Tire - Poor Operating Condition	393.75A	Flat tire or fabric exposed
Tire - Poor Operating Condition	393.75A1	Tire-ply or belt material exposed
Tire - Poor Operating Condition	393.75A2	Tire-tread and/or sidewall separation
Tire - Poor Operating Condition	393.75A3	Tire-flat and/or audible air leak
Tire - Poor Operating Condition	393.75A4	Tire-cut exposing ply and/or belt material
Tire - Poor Operating Condition	393.75B	Tire-front tread depth less than 4/32 of inch on a major tread groove
Tire - Poor Operating Condition	393.75B-OOS	Tire-front tread depth less than 2/32 of inch on a major tread groove
Tire - Poor Operating Condition	393.75C	Tire-other tread depth less than 2/32 of inch measured in a major tread groove
Tire - Poor Operating Condition	393.75C-OOS	Tire-other tread depth less than 1/32 of inch measured in 2 adjacent major tread grooves 3 separate locations 8 inches apart
Tire - Poor Operating Condition	396.3A1T	Tires (general)
Tire - Poor Operating Condition	396.3A1-TC	Tire in contact with another part of the vehicle

Vehicle Maintenance: Driver Observed Violation Group	Federal Violation Code	Violation Code Description
Tire - Poor Operating Condition	396.3A1-TP	Tires - Use of Tire Plug or Cord
Tire - Poor Operating Condition	396.7A-LT	Solid item lodged between dual tires
Vehicle Unsafe to Operate	396.7	Unsafe operations forbidden
Warning Flag	393.87A	Warning flag required on projecting load
Warning Flag	393.87B	Improper warning flag placement
Wheel - Driver Observed	393.205A	Wheel/rim cracked or broken
Wheel - Driver Observed	393.205B	Stud/bolt holes elongated on wheels
Wheel - Driver Observed	393.205C	Wheel fasteners loose and/or missing
Wheel - Driver Observed	396.3A1-AWW	Wheels - Welded Repair on wheel other than Disc-to-Rim attachment
Wheel - Driver Observed	396.3A1-HC	Hubs - Hub cap missing or broken
Wheel - Driver Observed	396.3A1-HS	Hub smoking
Wheel - Driver Observed	396.5A-HNLOW	Hubs - No visible or measurable lubricant showing in the hub - outer wheel
Wheel - Driver Observed	396.5B-HLOW	Hubs - oil and/or Grease Leaking from hub - outer wheel
Wheel - Driver Observed	396.5B-HWSLOW	Hubs - Wheel seal leaking - outer wheel
Wheel - Mud Flaps	392.2WC	Wheel (Mud) Flaps missing or defective

Hazardous Materials Compliance

Table 28: Hazardous Materials Compliance Violation Groups

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Attending HM Cargo	177.834I	Violation of attendance requirements of cargo tank during loading or unloading
Attending HM Cargo	397.5A	Unattended explosives 1.1/1.2/1.3
Attending HM Cargo	397.5C	Unattended hazmat vehicle
Attending HM Cargo	397.15	HM vehicle fueling violation
Cargo Tank	78.336-10	MC330 Protecting of Fittings
Cargo Tank	78.336-13	MC330 Anchoring of Tank
Cargo Tank	78.336-17	MC330 Metal ID Plate Marking
Cargo Tank	171.2G	Cargo tank (packaging) does not comply with Hazardous Materials Regulations
Cargo Tank	173.312	MEGCs general requirements
Cargo Tank	173.315N2	No emergency discharge control, other than metered delivery
Cargo Tank	173.315N3	No emergency discharge control, metered delivery
Cargo Tank	173.318	Cryogenic liquids in cargo tanks general requirements
Cargo Tank	173.318B10	Fail to mark inlet, outlet, pressure relief device, or pressure control valve of cryogenic tanks
Cargo Tank	173.32H3	Bottom outlets prohibited for UN or IM tanks for certain HM
Cargo Tank	173.33C2	Cargo tank not marked with design or MAWP
Cargo Tank	173.35A	Intermediate bulk container requirements

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	173.36	Large bulk packages general requirements
Cargo Tank	173.37	Flexible bulk packages general requirements
Cargo Tank	173.40	General requirements Poison Inhalation Hazard Zone A or B in cylinders
Cargo Tank	173.427D	Not packaged in accordance with 10 CFR, Part 71
Cargo Tank	173.60	General packaging requirements explosives
Cargo Tank	178.1010	No or improper marking of Flexible Bulk Containers
Cargo Tank	178.245-4	DOT51 integrity and securement
Cargo Tank	178.245-5	DOT51 valve protection
Cargo Tank	178.245-6A	DOT51 name plate markings
Cargo Tank	178.245-6B	DOT51 Specification tank outlets not marked
Cargo Tank	178.253	DOT57 Portable Tank Specifications
Cargo Tank	178.255-14	DOT60 ID plate
Cargo Tank	178.255-4	DOT60 manhole
Cargo Tank	178.255-7	DOT60 valve protection
Cargo Tank	178.255-8	DOT60 pressure relief
Cargo Tank	178.270-1	IM 101/102 general design
Cargo Tank	178.270-11D1	IM 101/102 pressure relief

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	178.270-14	IM 101/102 spec plate
Cargo Tank	178.270-4	IM 101/102 Structural integrity
Cargo Tank	178.270-6	IM 101/102 frames
Cargo Tank	178.270-8	IM 101/102 valve protection
Cargo Tank	178.270-9	IM 101/102 manholes
Cargo Tank	178.336-10	MC330 Protecting of fittings
Cargo Tank	178.336-13	MC330 Anchoring of tank
Cargo Tank	178.336-17	MC330 Metal ID plate marking
Cargo Tank	178.337-10	MC331 Accident damage protection
Cargo Tank	178.337-10A	MC331 Protection of fittings
Cargo Tank	178.337-13	MC331 supports and anchoring
Cargo Tank	178.337-17A	MC331 Metal identification plate missing
Cargo Tank	178.337-8A	MC331 Outlets general requirements
Cargo Tank	178.337-8A2	MC331 Outlets
Cargo Tank	178.337-8A3	MC331 Internal or back flow valve
Cargo Tank	178.337-8A4I	MC331 Remote closure device >3500 gal
Cargo Tank	178.337-8A4II	MC331 Remote closure device <3500 gal

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	178.337-9	MC331 Pressure relief devices
Cargo Tank	178.337-9C	MC331 Marking inlets/outlets
Cargo Tank	178.338-10A	MC338 Protection of fittings
Cargo Tank	178.338-10C	MC338 Rear end protection
Cargo Tank	178.338-10D	MC338 Minimum Ground Clearance
Cargo Tank	178.338-11B	MC338 Manual shutoff valve
Cargo Tank	178.338-11C	Missing or Defective Thermal and Mechanical Remote Closure Device
Cargo Tank	178.338-12	MC338 Shear section
Cargo Tank	178.338-13	MC338 Supports and anchoring
Cargo Tank	178.338-18A	MC338 Name plate and/or Specification plate missing
Cargo Tank	178.338-6	MC338 Manhole
Cargo Tank	178.338-8	MC338 Pressure relief devices
Cargo Tank	178.340-10B	MC306/307/312 metal certification plate missing
Cargo Tank	178.340-6	MC306/307/312 supports and anchoring
Cargo Tank	178.340-7A	MC306/307/312 ring stiffeners
Cargo Tank	178.340-7C	MC306/307/312 double bulkhead drain
Cargo Tank	178.340-7D	MC306/307/312 ring stiffeners

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	178.340-7D2	MC306/307/312 ring stiffener drain hole
Cargo Tank	178.340-8A	MC306/307/312 appurtenances attachment
Cargo Tank	178.340-8B	MC306/307/312 rearend protection
Cargo Tank	178.340-8C	MC306/307/312 overturn protection
Cargo Tank	178.340-8D1	MC306/307/312 piping protection
Cargo Tank	178.340-8D2	MC306/307/312 minimum road clearance
Cargo Tank	178.341-3A	MC306 no manhole closure
Cargo Tank	178.341-4D1	MC306 inadequate emergency venting
Cargo Tank	178.341-4D2	MC 306 pressure activated vents
Cargo Tank	178.341-4D3	MC 306 no fusible venting
Cargo Tank	178.341-5A	MC306 internal valves
Cargo Tank	178.341-5A1	MC306 heat actuated safety
Cargo Tank	178.341-5A2	MC306 remote control shutoff
Cargo Tank	178.342-3	MC307 manhole closure
Cargo Tank	178.342-4	MC307 venting
Cargo Tank	178.342-4B	Inadequate venting capacity
Cargo Tank	178.342-5A	MC307 internal valve

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	178.342-5A1	MC307 thermal device
Cargo Tank	178.342-5A2	MC307 remote control shutoff
Cargo Tank	178.343-3	Manhole closure MC312
Cargo Tank	178.343-4	Venting MC312 (show calculations)
Cargo Tank	178.343-5A	MC 312 top outlet and valve
Cargo Tank	178.343-5B1	MC312 bottom valve/piping protection
Cargo Tank	178.345-10	DOT406/407/412 Pressure Relief
Cargo Tank	178.345-11B	DOT406/407/412 tank valves
Cargo Tank	178.345-11B1	DOT406/407/412 self-closing system and remote means of closure
Cargo Tank	178.345-14B	DOT406/407/412 name plate
Cargo Tank	178.345-14C	DOT406/407/412 specification plate
Cargo Tank	178.345-1I2	DOT406/407/412 Double bulkhead drain
Cargo Tank	178.345-5D	DOT406/407/412 manhole securement
Cargo Tank	178.345-5E	DOT406/407/412 manhole marking
Cargo Tank	178.345-6	DOT406/407/412 supports and anchoring
Cargo Tank	178.345-7D4	DOT406/407/412 ring stiffener drain
Cargo Tank	178.345-8A	DOT406/407/412 accident protection

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Cargo Tank	178.345-8A5	DOT406/407/412 minimum road clearance
Cargo Tank	178.345-8B	DOT406/407/412 bottom damage protection
Cargo Tank	178.345-8C	DOT406/407/412 rollover damage protection
Cargo Tank	178.345-8D	DOT406/407/412 rear end protection
Cargo Tank	178.703A	IBC manufacturer markings
Cargo Tank	178.703B	IBC additional markings
Cargo Tank	178.704E	IBC bottom discharge valve protection
Cargo Tank	178.910	Failure to comply with Large Packaging Marking specifications
Cargo Tank	179.300-12	DOT106/110aw protection of fittings
Cargo Tank	179.300-13	DOT106/110aw venting and valves
Cargo Tank	179.300-15	DOT106/110aw safety relief devices
Cargo Tank	179.300-18	DOT106/110aw stamping of tanks
Cargo Tank	180.405B	Cargo tank specifications
Cargo Tank	180.405J	Cargo tank withdrawal certification
Cargo Tank	180.405K	Failure to mark a specification cargo tank with a Maximum Allowable Working Pressure of at least 3 psi
Cargo Tank	180.416G	Damaged liquid discharge hose
Exceeding Package Specifications	173.24BD2	Exceeding the maximum weight of bulk package rating as shown on specification plate

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Exceeding Package Specifications	180.3	Represent a package as meeting a specification that does not meet a specification
Forbidden Transportation of HM	173.54	Transporting or Offering for Transportation forbidden explosives
Forbidden Transportation of HM	177.801-TRN	Transporting a forbidden material
Forbidden Transportation of HM	177.870	Prohibited Hazardous Materials on passenger carrying vehicle
HM Instructions	173.9B	Failed to warn of fumigated load
HM Instructions	173.427A6IV	No instructions for exclusive use packaging - low specific activity (LSA)
HM Instructions	173.441C	Failure to provide Exclusive Use instructions to carrier
HM Instructions	397.19	Failure to furnish driver with instructions and documents for Division 1.1, 1.2, or 1.3 materials
HM Instructions	397.19C	Required documents or instructions not in drivers' possession for Division 1.1, 1.2, or 1.3 hazardous materials
HM Instructions	397.67	HM vehicle routing violation (non-RAM)
HM Instructions	397.101B	RAM vehicle not on preferred route
HM Instructions	397.101D	No or incomplete route plan for radioactive materials
HM Instructions	397.101E3	Driver not in possession of written route plan as required in 397.101(d) - RAM Shipments
HM Load Securement	173.32G1	Portable tank extending outside transport vehicle
HM Load Securement	173.35F2	IBC not secured to or within vehicle
HM Load Securement	177.834A	Package not secure in vehicle

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Load Securement	177.834M1	Improper securement of specification 106A or 110A tanks
HM Load Securement	177.842D	Blocking and bracing of RAM packages
HM Loading	173.24AC	Non-bulk package mixed contents requirements
HM Loading	173.25A	Failed to meet overpack conditions
HM Loading	173.25C	Transporting poison with edible materials, without proper overpack
HM Loading	173.30	No or Improper HM Loading by Shipper
HM Loading	173.315J1	Residential LPG tank under 5%
HM Loading	173.315J2	Residential LPG tank over 5%
HM Loading	173.33A	Cargo tank general requirements
HM Loading	173.33B	Cargo tank loading requirements
HM Loading	177.834B	Package not loaded according to orientation marks
HM Loading	177.834C	Smoking while loading or unloading Class 1, Class 3, Class 4, Class 5, or Division 2.1 Hazardous Material
HM Loading	177.834N	Improper loading of specification 56, 57, IM 101, and/or IM 102 portable tanks
HM Loading	177.835	Improper transportation of explosives (Class 1)
HM Loading	177.837	Improper transporting of Class 3 hazardous materials
HM Loading	177.837C	Cargo tank improper bonding or grounding
HM Loading	177.837D	Combustible liquid unloading violation

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Loading	177.838	Improper transportation of Class 4, Class 5 or Division 4.2
HM Loading	177.839	Improper transportation of Class 8 hazardous materials
HM Loading	177.840	Improper transportation of Class 2 hazardous materials
HM Loading	177.840L	No or improper Emergency Operating Procedures for cargo tanks
HM Loading	177.840O	Fail to test off-truck remote shutoff device on a daily basis
HM Loading	177.840S	Fail to possess remote shutoff when unloading
HM Loading	177.841	Improper transportation of Division 6.1 or Division 2.3 hazardous materials
HM Loading	177.841E	Package labeled Poison loaded with foodstuffs, feed or edible material
HM Loading	177.842A	Total Transport Index exceeds 50 (non-exclusive use)
HM Loading	177.848D	Prohibited loading, transportation, or storage combination of hazardous materials
HM Loading	177.848F	Violation of Class 1 hazardous materials load separation or segregation requirements
HM Marking	171.2K	Representing vehicle with Hazardous Materials with none present
HM Marking	172.301	Non-bulk package marking - general
HM Marking	172.301A	No ID number on side/ends of non-bulk package - large quantity of single HM
HM Marking	172.301A1	No proper shipping name and/or ID# marking on non-bulk package
HM Marking	172.301A1-SZ	Non-bulk package marking is incorrect size
HM Marking	172.301B	No technical name on non-bulk

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.301C	No special permit number on non-bulk package
HM Marking	172.301D	No consignee/consignor on non-bulk
HM Marking	172.301F	No "Non-odorized" entry for LPG cylinders
HM Marking	172.302	Marking requirements bulk packagings
HM Marking	172.302A	No ID# on a Bulk Packaging
HM Marking	172.302B	Bulk package marking incorrect size
HM Marking	172.302C	No special permit number on bulk package
HM Marking	172.303A	Prohibited HM marking on package
HM Marking	172.304A1	Package marking not durable, English or print
HM Marking	172.304A2	Marking not on sharply contrasting color
HM Marking	172.304A3	Marking obscured by label or attachments
HM Marking	172.304A4	Marking not away from other marking
HM Marking	172.308A	Package marked with unauthorized abbreviation
HM Marking	172.310A	No gross weight on RAM package with gross mass greater then 50kg (110 lb)
HM Marking	172.310B	RAM package not marked "Type A or B"
HM Marking	172.310C	Type B, B(U), B(M) package not marked with radiation symbol
HM Marking	172.310D	Type B, B(U), B(H) package not marked with radiation symbol

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.312A2	No package orientation arrows
HM Marking	172.312B	Prohibited use of orientation arrows
HM Marking	172.313A	No "Inhalation Hazard" on package
HM Marking	172.313B	No "Poison" on non-bulk plastic package
HM Marking	172.316A	ORM non-bulk package not marked
HM Marking	172.320A	Class 1 package not marked with ex-number
HM Marking	172.322B	No MARPOL marking on bulk packaging
HM Marking	172.324	Non-bulk hazardous substance not marked
HM Marking	172.325	No "hot" marking for bulk elevated temperature
HM Marking	172.325A	Elevated temperature material not marked "Hot"
HM Marking	172.325B	Improperly marked molten aluminum or molten sulfur
HM Marking	172.326A	Portable tank not marked with proper shipping name or ID#
HM Marking	172.326B	Portable tank not marked with owner or lessee name
HM Marking	172.326C1	No ID# marking on vehicle carrying portable tank
HM Marking	172.326C2	Shipper failed to provide ID# to carrier
HM Marking	172.326D	No NON-ODORIZED entry for LPG Portable Tanks
HM Marking	172.328A	Shipper failed to provide or affix ID# for cargo tank

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.328B	Cargo tank not marked with proper shipping name for gases
HM Marking	172.328C	Not marked with "QT" or "NQT" on MC330 or MC331 cargo tank
HM Marking	172.328D	Fail to mark manual remote shutoff device with "Emergency Shutoff"
HM Marking	172.328E	Fail to mark "Non Odorized LPG" on cargo tank
HM Marking	172.330A2	Tank car tank (ton cylinder) not marked as required
HM Marking	172.330B	Vehicle with tank car tank not marked
HM Marking	172.330C	No NON-ODORIZED entry for LPG on tank cars
HM Marking	172.331	Markings for other bulk packages
HM Marking	172.331A	Offeror fail to provide ID Numbers to motor carrier for other bulk packages
HM Marking	172.331B	Offeror fail to affix ID Numbers on other bulk packages
HM Marking	172.331C	Transport other bulk packages without proper ID Numbers
HM Marking	172.332	Required ID markings displayed
HM Marking	172.332A	Failure to display ID Numbers when required
HM Marking	172.332B	Orange panel does not meet specifications
HM Marking	172.332C	ID Number on placard does not meet specifications
HM Marking	172.334	Prohibited ID number marking
HM Marking	172.334A	ID Number display prohibited on Class 7, Class 1, Dangerous, or Subsidiary placard

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.336B	ID Numbers not properly displayed other than on placards
HM Marking	172.336C	Failing to display ID numbers according to provisions in table of 172.336(c)
HM Marking	172.338	Carrier failed to replace missing ID number
HM Marking	172.400A	Package or containment device not labeled as required
HM Marking	172.401	Prohibited labeling
HM Marking	172.402A	No label for subsidiary hazard
HM Marking	172.402B	Display of class number on label
HM Marking	172.402D	Subsidiary labeling for RAM
HM Marking	172.402E	Subsidiary labeling for Class 1 materials
HM Marking	172.402F	Subsidiary labeling for Division 2.2 materials
HM Marking	172.403A	No RAM label
HM Marking	172.403B	Wrong category RAM label
HM Marking	172.403E	Failing to have complete information on Fissile label
HM Marking	172.403F	RAM package 2 labels on opposite sides
HM Marking	172.403G	Failed to label RAM properly
HM Marking	172.403G2	Class 7 label: no activity or activity not in SI units
HM Marking	172.403H	RAM label overpack requirements

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.404A	Mixed package not properly labeled
HM Marking	172.404B	Failed to properly label consolidated package
HM Marking	172.406A1	Label placement not as required
HM Marking	172.406C	Multiple label placement not as required
HM Marking	172.406D	Label not on contrasting background or no border
HM Marking	172.406E	Failed to display duplicate label as required
HM Marking	172.406F	Label obscured by marking or attachment
HM Marking	172.502A1	Prohibited placarding
HM Marking	172.502A2	Sign or device could be confused with HM placard
HM Marking	172.504A	Vehicle not placarded as required
HM Marking	172.504B	Dangerous placard violation
HM Marking	172.505A	Not placarded for subsidiary poison inhalation hazard
HM Marking	172.505B	Not placarded for subsidiary corrosive
HM Marking	172.505C	Not placarded for subsidiary dangerous when wet
HM Marking	172.506A	Offeror failed to provide placards
HM Marking	172.506A1	Placards not affixed to vehicle
HM Marking	172.507	Not placarded for RAM highway route controlled quantity

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Marking	172.512A	Freight container not placarded
HM Marking	172.514A	Offering a bulk package that is not properly placarded
HM Marking	172.514B	Bulk package with residue of HM not properly placarded
HM Marking	172.516A	Placard not visible from direction it faces
HM Marking	172.516C1	Placard not securely affixed or attached
HM Marking	172.516C2	Placard not clear of appurtenance
HM Marking	172.516C4	Placard not located at least 3 inches away from advertising that could reduce its effectiveness.
HM Marking	172.516C5	Placard not reading horizontally
HM Marking	172.516C6	Placard damaged, deteriorated, or obscured
HM Marking	172.516C7	Placard not on contrasting background or border
HM Marking	172.519	Placard does not meet specifications
HM Marking	173.9	Fumigant marking requirements
HM Marking	173.29A	Empty package improper transportation
HM Marking	173.427A6VI	Exclusive use low specific activity (LSA) radioactive material not marked "Radioactive-LSA"
HM Marking	177.823A	No placards/markings when required
HM Requirements	171.2A	Failure to comply with Hazardous Materials regulations
HM Requirements	171.2B	Failure to comply with the requirements for HM transportation (including labeling and handling)

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
HM Requirements	171.2C	Failing to comply with Hazardous Materials regulations when offering hazardous materials for transportation
HM Requirements	171.2F	Transporting Hazardous Materials not in accordance with this part
HM Requirements	171.12A	Violation of US requirements for Transport Canada TDG shipment
HM Requirements	171.12AB	U.S. requirements for TDG shipment
HM Requirements	171.12B	Failure to comply with US requirements for shipments from Mexico
HM Requirements	171.23	Failure to comply with Specific US Requirements for International HM shipments
HM Requirements	171.26	Failure to comply with US Requirements for IAEA shipments
HM Requirements	173.24B	Failed to meet general package requirements
HM Requirements	173.24C	Packaging not authorized by the Hazardous Materials Regulations
HM Requirements	173.315A	Fail to comply with Cargo or portable tank Class 2 General requirements
HM Requirements	173.448	General RAM transport requirements
HM Requirements	177.801	Accepting or Transporting Hazardous Materials not prepared in accordance with regulations
HM Requirements	177.804	Failure to comply with FMCSR 49 CFR part 383 and 49 CFR parts 390 through 397
HM Requirements	177.804A	Failure to comply with FMCSR 49 CFR Parts 390 through 397 When Transporting HM
HM Requirements	177.804A-CDL	Failure to comply with 49 CFR Part 383 Commercial Driver's License Provisions When Transporting HM
HM Requirements	397.2	Must comply with rules in Parts 390-397 of the FMCSR when transporting Hazardous Materials
No HM Safety Permit	385.403	No HM Safety Permit

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Package Testing	173.315M2	Anhydrous ammonia nurse tank with no test markings when required
Package Testing	173.32A2	Portable tank periodic testing
Package Testing	180.205C	Periodic requalification of cylinders
Package Testing	180.207B	Periodic inspection of UN cylinders
Package Testing	180.213D	Requalification markings of cylinders
Package Testing	180.217	MEGCs Periodic requalification
Package Testing	180.352B	Rigid IBC retest date marking
Package Testing	180.352C	Visual inspection for flexible, fiberboard or wooden IBCs
Package Testing	180.352E	IBC retest date marking
Package Testing	180.352F	Failure to mark IBC periodic retest date
Package Testing	180.407A	Failure to test / inspection a specification cargo tank when due
Package Testing	180.407B	Fail to test/inspect a specification cargo tank when damaged
Package Testing	180.415B	Cargo tank test or inspection markings
Package Testing	180.519	DOT 106 and 110 Multi-unit tank car tank retest date markings
Package Testing	180.605K	Test date marking
Release of HM	173.24B1	Release of Hazardous Materials from package
Release of HM	173.24BA	Bulk package outage or filling limit requirements

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Release of HM	173.24F1	Closures for packagings must not be open or leaking
Release of HM	173.35D	Liquid filled IBC with Ullage over 98%
Release of HM	173.35L	IBC filled in excess of maximum gross mass marked on the container
Release of HM	173.431	Exceeded activity limits Type A or Type B package
Release of HM	173.441A	Exceeding radiation level allowed for transport of RAM under normal conditions
Release of HM	173.441B	Exceeding radiation level allowed for transport of RAM under exclusive use provisions
Release of HM	173.443A	Radioactive contamination exceeds limits
Release of HM	177.834J	Manholes and valves not closed or leak free
Release of HM	177.840G	Discharge valve not closed during transportation of Class 2 hazardous materials
Release of HM	177.842B	Violation of minimum distance from RAM package to any person or animal
Shipping Paper	172.200A	No shipping paper provided by offeror
Shipping Paper	172.201A1	Hazardous Materials not distinguished from non-Hazardous Materials
Shipping Paper	172.201A2	Hazardous Materials description not printed legibly in English
Shipping Paper	172.201A3	Hazardous Materials description contains abbreviation or code
Shipping Paper	172.201A4	Additional information not after Hazardous Materials basic description
Shipping Paper	172.201C	Failure to list page number of pages
Shipping Paper	172.201D	ER phone number not in compliance with Subpart G

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Shipping Paper	172.202A1	No or improper Identification Number
Shipping Paper	172.202A2	No or improper Shipping Name
Shipping Paper	172.202A3	No or improper Hazard Class or Division number.
Shipping Paper	172.202A4	No or improper Packing Group listed
Shipping Paper	172.202A5	No or improper Total Quantity listed
Shipping Paper	172.202B	Basic description not in proper sequence
Shipping Paper	172.202C	Total quantity missing or in improper location
Shipping Paper	172.202E	Non Hazardous Material entered with class or ID#
Shipping Paper	172.203A	DOT-SP or special permit number not entered on shipping paper
Shipping Paper	172.203B	Limited quantity not shown
Shipping Paper	172.203C1	Hazardous substance entry missing
Shipping Paper	172.203C2	RQ not on shipping paper
Shipping Paper	172.203D1	Radionuclide name not on shipping paper
Shipping Paper	172.203D10	No indication for Highway Route Controlled Quantity of Class 7 "HRCQ" on shipping paper
Shipping Paper	172.203D2	No RAM physical or chemical form
Shipping Paper	172.203D3	No RAM activity
Shipping Paper	172.203D4	No RAM label category

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Shipping Paper	172.203D5	No RAM transport index
Shipping Paper	172.203D6	No fissile radioactive entry
Shipping Paper	172.203D7	No DOE/NRC package approval notation
Shipping Paper	172.203D8	Export package or foreign made package not marked with IAEA Certificate
Shipping Paper	172.203D9	No Exclusive Use notation
Shipping Paper	172.203H1	No "0.2 PERCENT WATER" for anhydrous ammonia or missing "NOT FOR Q and T Tanks"
Shipping Paper	172.203H2	No "CORROSIVE/NONCORROSIVE" for Liquefied Petroleum Gas or missing "NOT FOR Q and T Tanks"
Shipping Paper	172.203K	No technical name for n.o.s. entry
Shipping Paper	172.203L	No "Marine Pollutant" entry
Shipping Paper	172.203M	No Poison Inhalation Hazard and / or Hazard Zone
Shipping Paper	172.203N	No "HOT" on shipping paper
Shipping Paper	172.203O	No temperature controls noted for Class 4.1 or Class 5.2
Shipping Paper	172.203P	No "Non-odorized" entry for LPG
Shipping Paper	172.205	Hazardous waste manifest not as required
Shipping Paper	172.600C	Offer or transport without emergency response information
Shipping Paper	172.602A	Emergency Response information not complete
Shipping Paper	172.602B	Form and manner of Emergency Response information

Hazardous Materials Compliance Violation Group	Federal Violation Code	Violation Code Description
Shipping Paper	172.602C1	Maintenance/accessibility of Emergency Response information
Shipping Paper	172.604	Offering HM for transportation with no or improper Emergency Response telephone number
Shipping Paper	172.604A	Failing to provide an emergency response phone number
Shipping Paper	177.817A	No or improper shipping papers (carrier)
Shipping Paper	177.817B	Shipper certification missing (when required)
Shipping Paper	177.817E	Shipping paper accessibility
Unsafe HM Vehicle Placement	173.442B1	External temperature of package exceeds 50 degrees Celsius (122 degrees F)
Unsafe HM Vehicle Placement	173.442B2	External temperature of package exceeds 85 degrees C (185 degrees F) in an exclusive use shipment.
Unsafe HM Vehicle Placement	397.7A	Improperly parked explosives vehicle
Unsafe HM Vehicle Placement	397.7B	Improperly parked hazmat vehicle
Unsafe HM Vehicle Placement	397.11A	Hazmat vehicle operated near open fire
Unsafe HM Vehicle Placement	397.11B	Hazmat vehicle parked within 300 ft. of fire

Driver Fitness

Table 29: Driver Fitness Violation Groups

Driver Fitness Violation Group	Federal Violation Code	Violation Code Description
Absent or Invalid Medical Certification	383.71H	Failing to submit medical certification documentation as required.
Absent or Invalid Medical Certification	391.41A	No medical certificate in driver's possession
Absent or Invalid Medical Certification	391.41A1-FPC	Operating a property-carrying vehicle without possessing a valid medical certificate. Previously Cited on [DATE]
Absent or Invalid Medical Certification	391.41A1-NPH	Operating a property-carrying vehicle without possessing a valid medical certificate - no previous history.
Absent or Invalid Medical Certification	391.41A1-P	Operating a passenger-carrying vehicle without possessing a valid medical certificate.
Absent or Invalid Medical Certification	391.41A-F	Operating a property-carrying vehicle without possessing a valid medical certificate.
Absent or Invalid Medical Certification	391.41A-FPC	Operating a property-carrying vehicle without possessing a valid medical certificate. Previously Cited on [DATE]
Absent or Invalid Medical Certification	391.41A-P	Operating a passenger-carrying vehicle without possessing a valid medical certificate.
Absent or Invalid Medical Certification	391.43H	Improper medical examiner's certificate form
Absent or Invalid Medical Certification	391.45B	Expired medical examiner's certificate
Absent or Invalid Medical Certification	391.49J	No valid medical waiver in drivers' possession
Absent or Invalid Medical Certification	398.3B8	No doctors certificate of qualification in possession - drivers of Migrant Workers
English Language Proficiency	391.11B2	Driver cannot read or speak the English language sufficiently to respond to official inquiries.
English Language Proficiency	391.11B2S	Driver must be able to understand highway traffic signs and signals in the English language
Fraudulent Medical Certificate	390.35B-MED	Operating a CMV while possessing a fraudulent medical certificate
Multiple Licenses	383.21	Operating a CMV with more than 1 driver license

Driver Fitness Violation Group	Federal Violation Code	Violation Code Description
No License to Operate Vehicle	383.23A2	Operating a CMV without a CDL
No License to Operate Vehicle	383.25A1	Operating on learner permit without a CDL holder
No License to Operate Vehicle	383.25A2	Operating on a CDL learners permit without a valid regular operator's license
No License to Operate Vehicle	383.91A	Operating a CMV with improper CDL group
No License to Operate Vehicle	391.11B1	Driving a CMV in Interstate Commerce and driver is less than 21 years of age
No License to Operate Vehicle	391.11B5	Driver lacking valid license for type vehicle being operated
No License to Operate Vehicle	391.11B5-DNL	Driver does not have a valid operator's license for the CMV being operated.
Not Physically Qualified	391.11B4	Driver not physically qualified
Not Physically Qualified	391.41A1-LOC	No medical certificate in driver's possession - vision, hearing, insulin using, epilepsy or any condition causing loss of consciousness
Not Physically Qualified	391.49JCOMPLY	Operating a commercial motor vehicle without complying with the requirements indicated on the skill performance evaluation
Not Physically Qualified	398.3B	Driver Qualifications (Physical) for Transportation of Migrant Workers
Restriction or No Endorsement	383.23A2-DT	Operating a CMV without a valid CDL: No double- or triple-trailer endorsement
Restriction or No Endorsement	383.23A2-H	Operating a CMV without a valid CDL: No hazardous materials / dangerous goods endorsement
Restriction or No Endorsement	383.23A2-P	Operating a CMV without a valid CDL: No passenger vehicle endorsement
Restriction or No Endorsement	383.23A2-R	Operating a CMV without a valid CDL: Violation of air brake restriction
Restriction or No Endorsement	383.23A2-S	Operating a CMV (School Bus) without a valid CDL: No school bus endorsement as described in 383.93(b)(5).

Driver Fitness Violation Group	Federal Violation Code	Violation Code Description
Restriction or No Endorsement	383.23A2-T	Operating a CMV without a valid CDL: No Tank Vehicle endorsement
Restriction or No Endorsement	383.25A5I	Operating a CMV with a Commercial Learner's Permit transporting passengers requiring the passenger (P) endorsement
Restriction or No Endorsement	383.25A5II	Operating a CMV with a Commercial Learner's Permit transporting passengers requiring the school bus (S) endorsement
Restriction or No Endorsement	383.25A6	Operating a CMV with a Commercial Learner's Permit transporting hazardous materials as defined in º383.5
Restriction or No Endorsement	383.93B1	No double or triple trailer endorsement on CDL
Restriction or No Endorsement	383.93B2	No passenger vehicle endorsement on CDL
Restriction or No Endorsement	383.93B3	No tank vehicle endorsement on CDL
Restriction or No Endorsement	383.93B4	No hazardous materials endorsement on CDL
Restriction or No Endorsement	383.93B5	Operating a School Bus without a school bus endorsement as described in 383.93(b)(5)
Restriction or No Endorsement	383.95A	Violating airbrake restriction
Restriction or No Endorsement	391.11B4-DEN	Driver operating a CMV without proper endorsements or in violation of restrictions.
Restriction or No Endorsement	391.11B5-DEN	Driver operating a CMV without proper endorsements or in violation of restrictions.
Restriction or No Endorsement	397.101E2	Driver not in possession of Certificate of Training for RAM Shipments
Suspended for Non-Safety Reasons - In State	383.51A-NSIN	Driving a CMV while CDL is suspended for a non-safety-related reason and in the state of driver's license issuance.
Suspended for Non-Safety Reasons - In State	391.15A-NSIN	Driving a CMV while disqualified. Suspended for non-safety-related reason and in the state of driver's license issuance.

Driver Fitness Violation Group	Federal Violation Code	Violation Code Description
Suspended for Non-Safety Reasons - Out of State	383.51A-NSOUT	Driving a CMV while CDL is suspended for a non-safety-related reason and outside the state of driver's license issuance.
Suspended for Non-Safety Reasons - Out of State	391.15A-NSOUT	Driving a CMV while disqualified. Suspended for a non-safety-related reason and outside the state of driver's license issuance.
Suspended for Safety Reasons	383.51A	Driving a CMV while disqualified from holding a CDL
Suspended for Safety Reasons	383.51A-SIN	Driving a CMV while CDL is suspended for a safety-related or unknown reason and in state of driver's license issuance.
Suspended for Safety Reasons	391.11B7	Driver disqualified from operating CMV
Suspended for Safety Reasons	391.15A	Driving a CMV while disqualified
Suspended for Safety Reasons	391.15A-SIN	Driving a CMV while disqualified. Suspended for safety-related or unknown reason and in the state of driver's license issuance.
Suspended for Safety Reasons - Out of State	383.51A-SOUT	Driving a CMV while CDL is suspended for safety-related or unknown reason and outside the state of driver's license issuance
Suspended for Safety Reasons - Out of State	391.15A-SOUT	Driving a CMV while disqualified. Suspended for a safety-related or unknown reason and outside the driver's license state of issuance