

**FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION  
U.S. DEPARTMENT OF TRANSPORTATION  
COMPREHENSIVE SAFETY ANALYSIS 2010 (CSA 2010)  
(DOCKET #FMCSA-2004-18898)**

**SUBMITTED BY:**  
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**September 15, 2009**

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The American Trucking Associations, Inc. (ATA)<sup>1</sup> is pleased to submit the following comments to the Federal Motor Carrier Safety Administration (FMCSA or Agency) on its Comprehensive Safety Analysis (CSA 2010) initiative. ATA is vitally interested in the design and implementation of new programs that will affect the Safety Fitness Determination (SFD) of motor carriers and drivers.

ATA's comments are based upon our initial review of the current methodology that is being utilized in pilot testing of CSA 2010. Special attention has been directed toward the severity weightings, which are being used to assign "value points" to violations of specific Federal Motor Carrier Safety Regulations (FMCSRs). Our input is based upon review of two documents: "Safety Measurement System (SMS) Methodology", Version 1.2, April 2009 and "Carrier Safety Measurement System (CSMS)—Violation Severity Weights", June 2008.

The recommendations that follow serve to supplement and reemphasize ATA's comments docketed on January 28, 2009.<sup>2</sup> ATA encourages FMCSA to closely examine this document and our previous submission. Our comments reflect longstanding concerns of ATA members such as:

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<sup>1</sup> ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Its membership includes more than 2,000 trucking companies and industry suppliers of equipment and services. Directly and indirectly through its affiliated organizations, ATA encompasses over 34,000 companies and every type and class of motor carrier operation.

<sup>2</sup> See <http://www.regulations.gov/search/Regs/home.html#documentDetail?R=090000648083ed26>.

- Assuring that only quality data is used in the FMCSA's SFD;
- Allowing motor carrier access to the Agency's rating databases;
- Using only violations that are true predictors of risk based on research and analysis;
- Providing a fair, equitable and timely means for motor carriers and drivers to challenge incorrect data entries;
- Establishing peer groups that compare similar operating conditions;
- Setting up an equitable system to determine accountability of crashes; and
- Using vehicle miles traveled (VMT) as a normalizing factor for the crash indicator.

The remainder of this document provides ATA's general comments on the CSA 2010 methodology, specific comments on the CSA 2010 Behavioral Analysis and Safety Improvement Categories (BASICS),<sup>3</sup> and suggestions for expanding public input into the CSA 2010 development process. ATA's comments will aid FMCSA in making adjustments to the CSA 2010 assessment process, and produce a more reliable and effective program.

### **General Comments on the CSA 2010 Initiative & Methodology**

1. The assignment of CSA 2010 severity weightings for violations of the FMCSRs would benefit from additional stakeholder input. FMCSA needs to convene a panel of motor carrier safety professionals to help refine the severity weightings. The approach would be similar to that used by the Agency when it had a law enforcement panel to adjust the severity weights after their conception by The Volpe Center.

The severity weightings must also be subjected to formal public comment during the SFD rulemaking.

2. ATA continues to emphasize that the Driver Safety Measurement System (DSMS) should be deployed at the same time as the Motor Carrier Safety Measurement System (MCSMS) for the reasons communicated in our January 2009 comments. At the very minimum, motor carrier access to the Driver Information Resource (DIR) System should be initiated at the earliest possible date, and before commencing the formal SFD rulemaking. Access to the DIR will provide motor carriers the ability to identify and remediate unacceptable safety behaviors/performance of problem drivers before FMCSA would have to intervene to seek correction. Motor carriers' early experience with the DIR will also allow them to provide the Agency educated opinions on the utility of DIR during the rulemaking's comment period.

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<sup>3</sup> BASIC = Behavioral Analysis Safety Improvement Category. The seven BASICS are: (1) Unsafe Driving, (2) Fatigued Driving, (3) Driver Fitness, (4) Controlled Substances and Alcohol, (5) Vehicle Maintenance, (6) Improper Loading/Cargo, and (7) Crash Indicator.

3. The Agency must give the highest priority to achieving uniformity and establishing standardized violation and crash coding and recording on a national basis. ATA supports the Agency's ongoing efforts to work with the Commercial Safety Vehicle Alliance (CVSA) and its State and law enforcement partners to assure consistency in reporting roadside violation and crash data. It is our understanding that a grant has been issued to CVSA to accomplish this end. Uniform enforcement is critical to the success of CSA 2010.

Until reasonable standardization is achieved, FMCSA should consider weighting CSA 2010 data on a State/regional basis. CSA 2010 peer groupings of motor carriers could be modified to incorporate adjustments for certain States that tend to emphasize more or less enforcement including certain kinds of roadside violations (Examples: speeding, controlled substance/alcohol use, etc.) and by regional traffic exposures (Example: crash occurrence in the congested Northeast vs. open areas of the Western Plain States). Motor carriers operating within a State or on a regional basis should be compared against their peers within the same State or region. To accomplish this, FMCSA could use the current CSA 2010 pilot database since the Agency collects violation and crash data on a State-by-State basis. This examination should produce insight into how regional data can be applied along the territorial lines of the Agency's Service Centers. This novel idea merits further analysis. Targeting motor carriers that have similar operational conditions within a geographical area would be refinement that would help remove State enforcement variability and, therefore, better identify high risk motor carriers and drivers.

4. Since CVSA-conducted inspections will be used as a normalizing factor for some of the CSA 2010 BASICS, roadside law enforcement must receive instruction and States will need to be monitored, to assure all inspections—those with or without violations—are entered into the CSA 2010 database. ATA appreciates FMCSA efforts to ensure that all inspections are entered into the CSA 2010 database. Motor carriers must receive positive credit for violation-free inspections.

ATA also urges the Agency to build other positive factors into the CSA 2010 assessments, including consideration whether the CSA 2010 database can identify and award "gold stars" to motor carriers that invest in new safety technology. Credits could be awarded for motor carrier involvement in an employer notification system for motor vehicle record checks (Driver Fitness BASIC); voluntary deployment of compliance or safety technologies, such as electronic logging system for hour-of-service compliance (Hours of Service *aka* Fatigued Driving BASIC) and collision mitigation systems (Unsafe Driving BASIC); participation in voluntary drug and alcohol test results clearinghouse(s) (Controlled Substances and Alcohol BASIC); and conduct of comprehensive and specialized training programs (Driver Fitness and Unsafe Driving BASICS). ATA suggests that 5 to 10 percentage points be subtracted from a BASIC's "violation score" depending on its value in improving safety performance or compliance. As

an example, if a motor carrier adopts an electronic logging system company-wide then a 7-10 point reduction would be in order.

5. FMCSA should also consider including additional peer groups based on the size of motor carriers. The Unsafe Driving and Controlled Substances and Alcohol BASICs currently have three categories for motor carriers with less than 50 trucks. Yet, the remaining two categories are broadly delineated—50 to 500 trucks and over 500 trucks. ATA recommends that FMCSA utilize its Motor Carrier Management Information System (MCMIS) database to better breakdown peer groups. Peer groups could be divided by very small (6 or less), small (7-20), medium (21-200), large (200-1000), and very large (1000 or greater) power units. Further separation by truckload, less-than-truckload, pickup and delivery, and those that transport HazMat would also improve targeting.
6. The CSA 2010 project team should seriously consider the possibility of assigning a “0” severity rating for certain paperwork errors. Examples of violations that should receive *de minimus* assignments are hours of service “form and manner” and HazMat shipping paper errors where the shipping paper is prepared by the offeror rather than the motor carrier. The “0” assignments would register roadside violations in keeping with the preference of the National Transportation Safety Board<sup>4</sup> and would still be available for Agency and motor carrier viewing, while not penalizing the motor carrier for *de minimus* violations and violations that were caused by third parties.
7. The Agency has stated that it is developing new measures to enhance Data Qs (the method for challenging potentially incorrect roadside violation and crash data). This includes steps to provide guidance and operational procedures to States in order to improve consistency in responding to motor carriers’ inquiries. ATA commends the Agency for taking these steps, but believes that an even more robust process must be set up.

FMCSA should establish an effective appeals process to address situations where a State is unresponsive or untimely in correcting obvious errors. Through this petition process, a motor carrier could file an appeal along with supporting documentation for direct review by FMCSA personnel or a special panel of knowledgeable experts designated by the Agency. The State would be required to respond in writing and provide supporting documentation to FMCSA demonstrating why the challenge by the motor carrier is unjustified. If a State fails to respond within a reasonable time frame (e.g. 30 days) of the motor carrier’s appeal or fails to provide reasonable justification for their position, then the motor carrier’s appeal would be granted. FMCSA would make a final decision within a reasonable time frame (e.g. 45 days) from the date of the motor carrier’s appeal.

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<sup>4</sup> NTSB Safety Recommendation, H-99-6 (FMCSA), Issued February 26, 1999. “Change the safety fitness rating methodology so that adverse vehicle and driver performance-based data alone are sufficient to result in an overall unsatisfactory rating for the carrier.” FMCSA’s new motor carrier/driver safety determination methodology and process (*aka* Comprehensive Safety Analysis [CSA] 2010) would be based on roadside violations in keeping with the NTSB request.

8. To further improve data inputs and quality, at least two corrections are needed. ATA believes that both of these concerns are law enforcement training issues and must be addressed under the training grant provided to CVSA.

Law enforcement should realize that some companies have subsidiaries, which have different Department of Transportation (DOT) numbers. Roadside (CSA 2010 violation) data must always be entered by DOT number and not by company name.

Only meaningful violations and convictions should be included in the CSA 2010 database. As revealed in ATA's January 2009 comments, the American Transportation Research Institute study<sup>5</sup> "Predicting Truck Crash Involvement: Developing a Commercial Driver Behavior-Based Model and Recommended Countermeasures" provides guidance on what violations and convictions are most likely to point to future crash potential. Warnings that are issued by law enforcement should not be uploaded in the system. If warnings are uploaded, then the agency must establish a means to prevent their registry in the CSA 2010 database.

## **Comments on CSA 2010 BASICS**

### Crash & Incident Experience

1. ATA wholeheartedly supports FMCSA's inclusion of a means to determine crash accountability (*aka* preventability and chargeability). The majority of serious multiple vehicle crashes involving trucks are instigated by the actions of passenger vehicle drivers.<sup>6</sup> The CSA 2010 database must only include those crashes in which "fault" was established against the motor carrier or driver. FMCSA should use an appropriate accountability indicator for DOT crashes and revise the definition of an accident in the FMCSRs.

ATA recommends three means to address the problem:

- a. The preferable means to do this would be law enforcement's indication on crash reports which party is most responsible. However, we recognize that this may not be currently feasible and would be better addressed as a long-term solution. Nevertheless, since it is important that an accurate decision is made on accountability prior to entry of crash data into the CSA 2010 database, ATA proposes another workable answer. ATA recommends that FMCSA designate personnel at every FMCSA office whose only purpose would be to determine accountability for crashes and to train others, i.e., Agency and law

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<sup>5</sup> See ATRI website for report summary: <http://www.atri-online.org/research/results/One-Pager%20CMVE.pdf>.

<sup>6</sup> See FMCSA's Large Truck Crash Causation Study <http://www.fmcsa.dot.gov/facts-research/research-technology/report/ltrcs-2006.htm>.

enforcement personnel, regarding assignment of accountability. This approach would assure accurate crash data is used in CSA 2010 and, more importantly, assure that the Crash Indicator actually pinpoints riskier motor carriers.

- b. FMCSA should develop, in conjunction with the motor carrier industry and CVSA, a guidance document that helps law enforcement determine what are accountable crashes. Law enforcement can be instructed by using this document on what is and what is not to be included by training offered through the special CVSA grant. If entries are made in error, motor carriers can then challenge the crash report based on the guidance document through the Data Qs system and appeal process.
- c. FMCSA should reconsider or reinterpret the current accident definition. The current definition is narrow and often contributes to the unfair assignment of crashes to motor carriers. Examples of situations that need exception from the accident definition and from the CSA 2010 crash indicator are: trucks that are legally parked, legally stopped, or the driver of other involved vehicle was under the influence of alcohol or drugs.

Additional improvements to the accident definition would be:

- Eliminating “convenience” tows (tows that are made upon request rather than due to actual disablement of the vehicle);
  - Only counting injuries that require admission to a hospital and not “treated and released” injuries;
  - Excluding vehicle fires that can be proven by the motor carrier to have resulted from manufacturer design issues rather than faulty maintenance; and
  - Disregarding notations of “possible injuries” by law enforcement on crash forms from consideration in the CSA 2010 database.
2. ATA is compelled to re-emphasize that VMT instead of the number of power units should be used to determine exposure rate. The number of registered power units is not the best approach in making CSA 2010 evaluation decisions, particularly since many power units are idle or are being used less in the current troubled economy. Using the number of power units distorts the score, because many carriers have trucks parked, without drivers assigned to them. VMT is a more objective means to determine exposure and risk.

VMT information is already made readily available to FMCSA in required data collected through biennial updates made by motor carriers on the MCS-150 (Motor Carrier Identification Report, OMB No. 2126-0013). Under item #21 of the MCS-150 motor carriers are required to “[e]nter the total mileage of all Commercial Motor Vehicles (CMV) in the company’s operation to the nearest 10,000 miles for the last calendar year”. Failure to provide reasonably accurate mileage information would be a manner of non-compliance (as it would

additionally be for not entering the proper number of power units required on the MCS-150) rather than an issue of the Agency not having access to such information.

3. The time-weighting under 3.4.1. Calculation of Crash Indicator Measure needs major readjustment. This calculation is found on page 3-9 of the Safety Measurement System (SMS) Methodology document. ATA recognizes the importance of weighting crashes to properly identify which motor carriers require an intervention; however, the current methodology can produce results that are counter-intuitive and misrepresent crash history.

For example, the current formula can give more weight to a vehicle that was towed, because of a damaged radiator within the last six months ( $1 \times 3 = 3$ ) than a fatality crash that occurred 13 months in the past ( $2 \times 1 = 2$ ).

As a further explanation, consider a motor carrier that was involved in three fatal crashes—one 23 months ago, one 15 months ago, and one 7 months ago. Based on the proposed formula, the Time and Severity Weighted Crash number is 8:

$$\begin{array}{l} 23 \text{ month old crash: } 2 \times 1 = 2 \\ 15 \text{ month old crash: } 2 \times 1 = 2 \\ 7 \text{ month old crash: } 2 \times 2 = \underline{4} \\ \phantom{7 \text{ month old crash: }} \phantom{2 \times 2 = } 8 \end{array}$$

Now consider a motor carrier with the same average measure of power units that was involved in four crashes that required towing, but no injuries or fatalities—one crash occurred 23 months ago, one 11 months ago, one 5 months ago, and one 3 months ago. Based on the proposed formula, the Time and Severity Weighted Crash number is 9, higher than the score for the motor carrier with 3 fatal crashes in the last two years.

$$\begin{array}{l} 23 \text{ month old crash: } 1 \times 1 = 1 \\ 11 \text{ month old crash: } 1 \times 2 = 2 \\ 5 \text{ month old crash: } 1 \times 3 = 3 \\ 3 \text{ month old crash: } 1 \times 3 = \underline{3} \\ \phantom{3 \text{ month old crash: }} \phantom{1 \times 3 = } 9 \end{array}$$

ATA believes that a motor carrier involved in three fatal crashes in the last two years is a far more serious safety concern than a motor carrier who has not been involved in any fatal crashes during that same time period. As it is much more likely for a crash to involve a tow rather versus a fatality, this weighting problem is real and would seriously alter assessment of which carriers require an intervention.

ATA recommends the formula be revised to identify riskier motor carriers. FMCSA should assign fatalities a higher crash severity weight relative to tow-

away crashes. Tow-away only crashes should be assessed the lowest crash severity weight of the three crash types. ATA also recommends the time weighting for injuries and fatalities be separated into distinct categories rather than grouped together. Possible options include changing the time-weights 1.5 for injury and 2 for fatality, or 2 for injury and 3 for fatality.

### Unsafe Driving

1. As previously stated, steps must be taken to assure uniform violation coding nationwide. As an illustration of how inconsistent coding can affect the Unsafe Driving BASIC computations, consider that some States equate improper lane changes as reckless driving, which are assigned 10 severity weighting points, while in other States an improper lane change is not considered reckless driving and, therefore, would be 5 out of 10 points.
2. Allowance also needs to be made when a violation is successfully challenged in court. If a driver is cited at the scene for a serious offense (Example: reckless driving) and later convicted of a lower offense (Example: speeding), then the driver and motor carrier must be allowed to use Data Qs and an appeal process to change the record and reduce the severity weighting.
3. Measured against other current severity weighting points within the Unsafe Driving BASIC, the HazMat violations appear to be underweighted.

To help properly assign weighting points to the Unsafe Driving BASIC, ATA recommends that the Agency obtain input from a select industry panel.

### Controlled Substances/Alcohol

1. In the short-term this BASIC will have little value to the Agency in making CSA 2010 determinations. Very few controlled substances and alcohol violations involving CMV drivers are detected at roadside by law enforcement.
2. Furthermore, only three regulations are being used to determine safety fitness determinations under this BASIC. (In comparison with other two regulations “possession/use/under the influence of alcohol within 4 hours prior to duty” appears underweighted).

The Agency needs an adequate database to evaluate motor carrier and driver compliance with controlled substances and alcohol regulations. ATA urges FMCSA to evaluate how the data within a national clearinghouse of positive drug and alcohol test results could be used to predict the need for interventions. ATA recommends that this be accomplished as part of the Agency’s planned “CMV Driver Positive Controlled Substances and Alcohol Test Results Database” rulemaking next year. Questions should be asked during this rulemaking on how

clearinghouse data could be used as a substitute for roadside violations entered in the current Controlled Substances and Alcohol BASIC.

### Fatigued Driving

1. This BASIC should be renamed “Hours of Service”, since it is based solely on hours of service (HOS) violations. Fatigue is a much broader concept than compliance with the HOS regulations.
2. With respect to the severity weighting within this BASIC, it seems illogical that “failure to have or keep a current logbook” has a point rating of 5 out 10, as compared to a violation of “hours” (11 hour driving, 14 hours on duty, 60/70 hour workweek, 34 hour restart, etc.), which results in assignment of 7 weighting points. These 7 point assignments also appear inappropriate when compared against a “failure to reconstruct duty status, when using an onboard recording device” violation, which is only assigned 1 point. Lack of a logbook indicates a driver is unaware of the HOS regulations or could be attempting to avoid having violations detected. As such, failure to keep a current logbook should be assigned 10 severity points. Similarly, not reconstructing duty status when using an onboard recording device does not allow roadside law enforcement the ability to determine if a driver is in HOS compliance. Therefore, 7 severity weighting points should be assigned.

ATA recommends that an industry panel be convened to help the Agency in the assignment of weighting points in this BASIC.

3. The 392.3 violations must be eliminated from the Fatigued Driving (Hours of Service) BASIC, since these are based on subjective decisions by roadside personnel rather than objective criteria supported by research.
4. The logbook “form and manner” violations should be weighted zero “0”. These are usually driver recording errors that do not materially affect HOS compliance, but can distort the CSA 2010 equation because of frequency of occurrence and, consequently, unnecessarily skew the “Fatigue Driving” fitness determination.

### Driver Fitness

1. The assignments of severity weighting for Driver Fitness violations are not adequately tied to crash risk nor do they follow a logical pattern. As examples, the violations 391.11 “using an unqualified driver” and 391.15 “driver disqualified” are assigned 6 severity weighting points; yet “no medical certificate” violations (an unqualified driver issue) are only assigned 1 point. (If a driver cannot provide a valid medical certificate within a reasonable time then severity points equal to an unqualified driver should be assigned. If a driver can provide a medical certificate that was valid during the time of inspection than “0” points should be assigned.)

Again, an industry panel needs to be assembled to help the Agency in assigning Driver Fitness weighting points.

### Vehicle Maintenance

1. Mechanical problems that did not contribute to a crash, but rather resulted from a crash must not be recorded as violations. Multiple violations have been issued by law enforcement that are not related to the cause of the crash, but are directed more toward not allowing the truck back on the highway. These crash-caused, vehicle out-of-service (OOS) violations must not be included in the CSA 2010 database as they have been for SafeStat.

ATA recommends two approaches to address this problem:

- a. Law enforcement personnel should be instructed that inspection reports produced after a crash are to only include violations that are related to cause of the crash. This is a law enforcement training issue that can be addressed through the CVSA grant.
  - b. As it can be determined to be feasible, crash reports should include boxes to be checked by the law enforcement indicating which vehicle violations caused the crash and which violations did not. Those violations that did not cause the crash should not be included in the CSA 2010 database. If this change in crash reports does not occur then FMCSA must find a means to eliminate the inappropriate violations from the scoring calculation.
2. The assignment of severity weights for tires, brakes and lights appear to be too high when associated crash risk is considered. There are redundant systems on trucks (dual tires, multiple LED lights, etc.), which compensate or allow for control until the vehicles are stopped or repaired. Equipment defects, such as, tires on the steering axle, defects in coupling systems, and instances of wheel separation (cracked wheels, wheel bearings, etc.) should be rated high and the appropriate weighting points assigned.

An industry panel should be requested to realign the Vehicle Maintenance weighting points.

### Improper Loading/Cargo Securement

1. Many HazMat violations are discovered during roadside inspections, but are actually caused by mistakes made by the shipper. In these instances, the HazMat violations should not impact a motor carrier's CSA 2010 score. For example, HazMat violations discovered in a trailer sealed by a shipper and offered for transport should not count against a motor carrier. Similarly, mistakes made on a HazMat shipping paper prepared by the shipper or noncompliant packaging

selected by the shipper should not count against the motor carrier. This concern is similar to the issues raised in the FMCSA's intermodal equipment rulemaking.<sup>7</sup> Attached is the guide "ATA Suggested Assignment of Responsibility for HazMat Violations", which offers recommendations on how responsibility for HazMat violations should be allocated between motor carriers and shippers. If HazMat violations can only be assigned to motor carriers because of the current design of the CSA 2010, then zero "0" points should be assigned for HazMat violations that are not under the control of motor carriers, until a more permanent solution is found.

Law enforcement officers should also be instructed not to issue HazMat violations to motor carriers, where the violation was caused by the shipper and it was not reasonable for the carrier to discover the violation. This issue must be addressed through the CVSA training grant and should in the future be corrected through FMCSA regulatory action.

2. There appears to be inconsistency in the severity weights within this BASIC. For example 393.87 (b) "improper warning flag placement" is weighted 7 points, while 177.835(g) improper "transporting detonators and primer with division 1.1 - 1.4" is only weighted 2 points.

ATA recommends that an industry panel be convened to help the Agency in assignment of weighting points for HazMat.

3. CVSA training and FMCSA policy is needed on how to cite 393.100 (b) "leaking cargo", which is weighted 10 severity points. Law enforcement can and have cited 393.100 (b) when only a minor leak is discovered from a small package of relatively low hazard material (Example: paint). In such instances, 10 points would be unwarranted.

### **FMCSA Needs to Continue to Involve Motor Carriers in CSA 2010 Development**

To increase public input and understanding of CSA 2010, ATA recommends that:

- A panel of safety professionals of motor carriers be convened to offer recommendations on how specific violations should be severity weighted.
- FMCSA conduct free webinars that explain the CSA 2010 initiative and the important aspects of the operational model.
- SFD rulemaking address all of the major elements of CSA 2010 including access to databases, methodologies, weightings, interventions, positive incentives, and recourses after SFDs are made.

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<sup>7</sup> See rulemaking docket at:

<http://www.regulations.gov/search/Regs/home.html#searchResults?Ne=11+8+8053+8098+8074+8066+8084+1&Ntt=FMCSA-2005-23315&Ntk=All&Ntx=mode+matchall&N=0>.

- At least one year prior to deployment, the final CSA 2010 model and its components be generally publicized by media releases and educational efforts.
- Future CSA 2010 program directives to field compliance personnel regarding implementation practices and procedures be made publicly available to encourage conformance with intervention strategies and promote regulatory compliance.

## Closing

ATA appreciates the opportunity to offer these specific comments on the CSA 2010 methodology. As the comments reveal, there are several actions that FMCSA can pursue to improve the data quality and utility and, ultimately, improve the overall effectiveness of the CSA 2010 initiative.

In summary ATA recommends that:

- FMCSA convene a panel made of safety professionals of motor carriers to better determine the severity weights of violations included in the CSA 2010 database.
- Only quality data be used in the SFD.
- Motor carriers be allowed access to the Agency's CSA 2010 databases that rate their companies and their drivers.
- The special law enforcement training issues necessary to ensure consistent enforcement be addressed through CVSA training grants.
- Standardized violation and crash coding and recording be instituted nationwide.
- Positive incentives be provided to encourage motor carriers to improve performance.
- Peer groups be established that compare motor carriers with similar operations.
- Only violations that are true predictors of risk be used in assessments.
- A fair, impartial and timely means be set up for motor carriers to challenge and appeal incorrect data entries.
- An equitable system be established to determine crash accountability.
- An improved definition of a DOT crash be created.
- VMT be used as the normalizing factor for crashes.
- The time-weighting formula be significantly improved.
- Public comment be obtained on how a national clearinghouse for positive drug and alcohol results could be used to replace the roadside violations in the Controlled Substances and Alcohol BASIC.
- Efforts be continued to increase public input and understanding of CSA 2010.

Again, ATA thanks the Agency for allowing us to comment on how motor carriers' and drivers' safety fitness will be determined in the future. We offer our continued services to help make this a successful endeavor.

## ATA Suggested Assignment of Responsibility for HazMat Violations

***Entity Primary Responsible for Violation: Shipper = S Motor Carrier = MC Owner = Equipment Owner  
Responsible Party = RP (Entity that Packaged or Re-Packaged Item Being Transported)***

Section	Violation description	Violation group	Suggested Party
172.304(a)(4)	Marking not away from other marking	Markings	S
172.310(a)	No gross weight on radioactive materials package greater than 50 KG	Markings	S
172.310(b)	Radioactive materials package not marked "Type A or B"	Markings	S
172.310(c)	Type B, B(U), B(M) package not marked with /radiation symbol	Markings	S
172.312(a)	No package orientation arrows	Cargo Protection	S
172.312(a)(1)	Non-bulk package liquid HM—closures up	Markings	S
172.312(a)(2)	No package orientation arrows	Cargo Protection	S
172.312(b)	Prohibited use of orientation arrows	Cargo Protection	S
172.313(a)	No "inhalation hazard" on package	Markings	S
172.313(b)	No "poison" on non-bulk plastic package	Markings	S
172.316(a)	"Other regulated material" non-bulk package not marked	Markings	S
172.320(a)	Class 1 package not marked with ex-number	Markings	S
172.322(b)	No marine pollutant marking on bulk packaging	Markings	S
172.324	Non-bulk hazardous substance not marked	Markings	S
172.324(a)	Hazardous substance—no constituent name	Markings	S
172.324(b)	Hazardous substance —no required marking	Markings	S
172.325	No "HOT" marking for bulk elevated temperature	Markings	S
172.325(a)	Elevated temperature not marked "Hot"	Markings	S
172.325(b)	Improperly marked molten aluminum/sulphur	Markings	S
172.326	Portable tank marking	Markings	S

172.326(b)	No portable tank owner or lessee marking	Markings	S
172.326(c)(1)	No ID number marking on vehicle carrying portable tank	Markings	S
172.326(c)(2)	Shipper failed to provide ID number to carrier	Markings	S
172.328	No ID number displayed on cargo tank	Markings	S
172.328(a)	Shipper failed to provide or affix ID number for cargo tank	Markings	S
172.328(a)(1)	Failing to provide ID number on placard or orange panel	Markings	S
172.328(b)	Cargo tank not marked for class 2	Markings	S
172.328(c)	No quenched and tempered steel (QT)/other than quenched and tempered steel (NQT) marked on cargo tank (MC 330/331)	Markings	O
172.328(d)	Fail to mark manual remote shutoff device	Markings	O
172.330(a)(2)	Tank car tank (non cylinder) not marked as required	Markings	O
172.330(b)	Motor vehicle with tank not marked	Markings	S
172.332	ID number marking for (b) panel (c) placards	Markings	<b>MC</b>
172.332(a)	Required ID markings displayed	Markings	<b>MC</b>
172.334	Prohibited ID number marking	Markings	S
172.334(a)	ID # displayed on Class 7/Class 1/Dangerous or Subsidiary placard	Markings	S
172.334(b)(1)	Displaying wrong ID number on package, container, vehicle	Markings	S
172.334(d)	ID number on van with mixed HM load	Markings	S
172.334(f)	Failing to display orange ID number panel near required placard	Markings	S
172.334(g)	Prohibited ID number marking	Markings	S
172.336(b)	ID numbers not properly displayed	Markings	S
172.336(c)(1)	Failing to display ID numbers on compartment cargo tank in sequence	Markings	S
172.338	Carrier failed to replace missing ID number	Markings	<b>MC</b>

172.400(a)	Package/containment not labeled as required	Markings	S
172.400(a)(1)	No HM label on non-bulk package	Markings	S
172.400(a)(2)	No HM label on other bulk package	Markings	S
172.400(a)(3)	No HM label on portable tank	Markings	S
172.400(a)(4)	No HM label on specification 106/110 multi-unit tank car	Markings	S
172.400(a)(5)	No HM label on overpack, freight container, or unit load device	Markings	S
172.401	Prohibited labeling	Markings	S
172.401(a)(1)	Affixing label to a non-HM package or container	Markings	S
172.401(b)	Marking confused as HM label	Markings	S
172.402(a)	No label for subsidiary hazard	Markings	S
172.402(a)(1)	HM labeling	Markings	S
172.402(b)	Display of class number on label	Markings	S
172.402(c)	No "Cargo Aircraft Only" label	Markings	S
172.402(d)	Subsidiary labeling for radioactive materials	Markings	S
172.402(e)	Subsidiary labeling for class 1 (explosive) materials	Markings	S
172.403(a)	Radioactive material label requirement	Markings	S
172.403(b)	Highest category label required	Markings	S
172.403(e)	Additional warning labels	Markings	S
172.403(f)	Radioactive material package—2 labels on opposite sides	Markings	S
172.403(g)	Failed to label radioactive material properly	Markings	S
172.403(g)(2)	Class 7 label – no activity/activity not in SI units	Markings	S
172.404(a)	Mixed package not properly labeled	Markings	S
172.404(b)	Failed to properly label consolidated package	Markings	S
172.406	Label placement	Markings	S
172.406(a)(1)	Label placement not as required	Markings	S
172.406(a)(1)(i)	Improper label placement	Markings	S
172.406(c)	Multiple label placement not as required	Markings	S

172.406(d)	Label not on contrasting background or no border	Markings	S
172.406(e)	Failed to display duplicate label as required	Markings	S
172.406(e)(4)	Duplicate labeling	Markings	S
172.406(f)	Label obscured by marking or attachment	Markings	S
172.504(a)	Vehicle not placarded as required	Markings	<b>MC</b>
172.506(a)(1)	Placards not affixed to vehicle	Markings	<b>MC</b>
172.516(a)	Placard not visible from direction it faces	Markings	<b>MC</b>
172.516(c)(1)	Placard not securely affixed or attached	Markings	<b>MC</b>
172.516(c)(2)	Placard not clear of appurtenance	Markings	<b>MC</b>
172.516(c)(3)	Placard not clear of tire dirt	Markings	<b>MC</b>
172.516(c)(4)	Placard improper location	Markings	<b>MC</b>
172.516(c)(5)	Placard not reading horizontally	Markings	<b>MC</b>
172.516(c)(6)	Placard damaged, deteriorated, or obscured	Markings	<b>MC</b>
172.516(c)(7)	Placard not on contrasting background or border	Markings	<b>MC</b>
172.516(d)	Placard holder obscures placard	Markings	<b>MC</b>
172.519(a)(1)	Placard not weatherproof	Markings	<b>MC</b>
172.519(b)(4)	Placard with non-spec placard	Markings	<b>MC</b>
172.519(d)	Placard with non-spec placard	Markings	<b>MC</b>
172.600(c)	Emergency Response (ER) information not available	Documentation	S
172.600(c)(1)	No immediately available emergency response information	Documentation	S
172.600(c)(2)	No emergency response information available to government agent	Documentation	S
172.602(a)	Emergency response information missing	Documentation	S
172.602(b)	Form and manner of emergency response information	Documentation	<b>MC</b>
172.602(b)(1)	Failing to have all required emergency response information in English	Documentation	<b>MC</b>
172.602(b)(2)	No emergency response information available away from HM package	Documentation	<b>MC</b>

172.602(c)(1)	Maintenance/accessibility of emergency response information	Documentation	<b>MC</b>
173.22a(a)	Transporting HM in exempt packages without holding exemption	HM Other	S
173.22a(b)	Transporting HM in exempt packages without holding exemption	Documentation	S
173.24(b)(1)	Release of HM from package	Cargo Protection	<b>RP</b>
173.25(c)	Transporting poison w/ edible, no overpack	Markings	S
173.29(a)	Empty package improper transportation	Cargo Protection	S
173.3	Loading/ unloading transport vehicles	Cargo Protection	<b>RP</b>
173.32(a)	IM portable tank periodic testing	Package Integrity	S
173.32(g)(1)	IM101/102 outlet closures	Package Integrity	S
173.32(g)(2)	IM101/102 outlet closures	Package Integrity	S
173.32(h)(3)	IM101/102 bottom outlets prohibited	Package Integrity	S
173.33	Cargo tanks (general)	Cargo Protection	O
173.33(a)	Cargo tank general requirements	Cargo Protection	O
173.33(a)(2)	Two or more HM in a cargo tank resulting in an unsafe condition	Cargo Protection	<b>RP</b>
173.33(a)(3)	Specification cargo tank with past due retest/re-inspection date	Cargo Protection	RP
173.33(b)	Cargo tank loading requirements	Cargo Protection	RP
173.33(b)(1)	HM in cargo tank which had dangerous reaction with cargo tank	Cargo Protection	RP
173.33(b)(2)(iv)	HM in cargo tank which may corrode or react with tank material	Cargo Protection	S
173.33(b)(2)(v)	HM in cargo tank prohibited by 173.21 or 173.24	Cargo Protection	S
173.33(c)(2)	Cargo tank not marked with design or maximum allowable working pressure (MAWP)	Cargo Protection	O

173.33(e)	Transporting prohibited liquids in cargo tank piping	Cargo Protection	S
173.33(g)	No remote self-closing valve on 338 discharge opening	Cargo Protection	O
173.35(a)	Intermediate bulk container requirements	Package Integrity	S
173.35(f)(2)	Intermediate bulk container (IBC) not secured to or within vehicle	Load Securement	<b>RP</b>
173.54	Forbidden explosives, offering or transporting	Fire Hazard	<b>RP</b>
173.315(j)(3)	Residential gas tank not secure in transport	Fire Hazard	<b>MC</b>
173.315(j)(4)	Liquefied Petroleum Gas (LPG) storage tank overfilled for transport	Fire Hazard	S
173.315(j)(5)	Gas tank	Fire Hazard	O
173.315(n)(3)	No off-truck remote to close internal stop valve on cargo tank truck	Fire Hazard	O
173.421(a)	Transporting limited quantity—radioactive material exceeds 0.5 millirem/hour	Cargo Protection	<b>RP</b>
173.427(a)(6)	Exclusive use low specific activity (LSA) radioactive material not marked "Radioactive-LSA"	Markings	S
173.427(a)(6)(iv)	No instructions for exclusive use packaging—low specific activity (§ 173.427(a)(iv)*)	Cargo Protection	S
173.427(a)(6)(vi)	Exclusive use low specific activity (LSA) radioactive material not marked "Radioactive-LSA" (§ 173.427(a)(vi)*)	Markings	S
173.427(b)(5)	Bulk liquid low specific activity radioactive material in no-specification cargo tank	Cargo Protection	S
173.427(d)	Not packaged in accordance with 10 CFR, part 71	Cargo Protection	S
173.441(a)	Exceeding radiation level limitations allowed for transport	Cargo Protection	<b>RP</b>
173.448	General radioactive material transport requirements	HM Other	<b>MC</b>
173.448(a)	Radioactive material package not secured/shifting	Load Securement	<b>MC</b>

173.448(c)	Transporting package w/radioactive label w/passengers	Other Cargo	<b>MC</b>
173.448(g)	Radioactive material overpack consolidation required	Cargo Protection	<b>S</b>
177.801	Accepting/transporting HM not prepared properly	HM Other	<b>MC</b>
177.802	Failing to allow inspection of HM shipment	HM Other	<b>MC</b>
177.817	Shipping papers required	Documentation	<b>RP</b>
177.817(a)	No shipping papers (carrier)	Documentation	<b>MC</b>
177.817(b)	Shipper certification missing (when required)	Documentation	<b>MC</b>
177.817(e)	Shipping paper accessibility	Documentation	<b>MC</b>
177.817(e)(1)	Shipping paper accessibility	Documentation	<b>MC</b>
177.817(f)	Transporter fails to produce shipping paper in timely manner	Documentation	<b>MC</b>
177.823	No placards	Markings	<b>MC</b>
177.823(a)	No placards/markings when required	Markings	<b>MC</b>
177.834	Load secure block/brace	Load Securement	<b>MC</b>
177.834(a)	Package not secure in vehicle	Load Securement	<b>MC</b>
177.834(c)	Smoking while loading or unloading	Fire Hazard	<b>RP</b>
177.834(e)	Parking brake not set while loading/unloading	Other Cargo	<b>MC</b>
177.834(f)	Using a tool likely to cause damage to the closure of any package or container	Load Securement	<b>RP</b>
177.834(h)	Tampering with HazMat while in transit	Cargo Protection	<b>MC</b>
177.834(i)	Attendance of cargo tank— (load or unload)	Cargo Protection	<b>MC</b>
177.834(i)(2)	Attendance of cargo tank— (load or unload)	Cargo Protection	<b>MC</b>
177.834(j)	Manholes and valves not closed or leak free	Cargo Protection	<b>RP</b>
177.834(j)(1)	Transporting HM in cargo tank with open covers	Cargo Protection	<b>RP</b>

177.834(j)(2)	Transporting Class 3 material in cargo tank w/o without manholes closed and secured	Cargo Protection	<b>RP</b>
177.834(l)(1)	Prohibited cargo heaters-class 1	Cargo Protection	<b>RP</b>
177.834(l)(2)	Prohibited cargo heaters-class 3 or division 2.1	Cargo Protection	<b>RP</b>
177.834(m)(1)	Securing specification 106a or 110a tanks	Cargo Protection	<b>MC</b>
177.834(n)	Improper loading—specification 56, 57, IM101 and IM102	Fire Hazard	<b>MC</b>
177.835	Improper transport of explosives (class 1)	Fire Hazard	<b>MC</b>
177.835(a)	Loading/Unloading Class 1 with engine running	Fire Hazard	<b>MC</b>
177.835(b)	Loading/Unloading Class 1 explosive in unsafe manner	Fire Hazard	<b>MC</b>
177.835(c)	Transporting Class 1 in combination vehicles	Fire Hazard	<b>MC</b>
177.835(e)	Transporting class 1 explosive in vehicle with sharp projections	Fire Hazard	<b>MC</b>
177.835(f)	Transporting Division 1.1-1.3 (explosive) with floor unlined or not tight	Fire Hazard	<b>MC</b>
177.835(g)	Transporting detonator or primer with division 1.1 - 1.4, blast agent, detonator cord	Fire Hazard	<b>MC</b>
177.835(h)	Transporting. Class 1 explosive in vehicle not covered or tailgate open	Fire Hazard	<b>MC</b>
177.835(i)	Improper transport of explosives (class 1)	Fire Hazard	<b>MC</b>
177.835(j)	Transfer of Class 1 materials en route	Fire Hazard	<b>MC</b>
177.837	Improper transporting of class 3	Fire Hazard	<b>MC</b>
177.837(a)	Failing to stop engine to load/unload class 3	Fire Hazard	<b>MC</b>
177.837(c)	Cargo tank improper bonding/ grounding	Cargo Protection	<b>MC</b>
177.837(d)	Combustible liquid unloading violation	Cargo Protection	<b>MC</b>
177.838	Improper transport of class 4, 5 or division 4.2	Fire Hazard	<b>MC</b>
177.839	Improper transporting of class 8	Cargo Protection	<b>MC</b>

177.839(b)	Class 8 (corrosive) improper loading violation	Cargo Protection	<b>MC</b>
177.84	Improper transport of class 2	Fire Hazard	<b>MC</b>
177.840(a)(1)	Cylinder securement in upright position (4L)	Cargo Protection	<b>MC</b>
177.840(g)	Discharge valve not closed in transit class 2	Cargo Protection	<b>MC</b>
177.840(l)	No written emergency discharge procedures — compressed gas	Documentation	<b>MC</b>
177.840(m)	Unloading liquefied compressed gas with bad piping	Cargo Protection	<b>MC</b>
177.840(n)	Not promptly shutting down after unintentional release	Fire Hazard	<b>MC</b>
177.840(o)	Fail to test off-truck remote shutoff device	Cargo Protection	<b>MC</b>
177.840(p)	Not attending cargo tank unloading liquefied petroleum gas/ammonia — metered service	Cargo Protection	<b>MC</b>
177.840(q)	Not attending cargo tank unloading liquefied petroleum gas/ammonia — metered service	Cargo Protection	<b>MC</b>
177.840(s)	Fail to possess remote shutoff when unloading	Cargo Protection	<b>MC</b>
177.840(t)	Not in arms reach of means to close valve unloading cargo tank without emergency equipment.	Cargo Protection	<b>MC</b>
177.841	Improper transport of division 6.1 or 2.3	HM Other	<b>MC</b>
177.841(e)	Poison label loaded with foodstuffs	HM Other	S
177.842(a)	Total transport index exceeds 50— non-exclusive use	HM Other	S
177.842(b)	Distance from package to person—radioactive material	HM Other	<b>MC</b>
177.842(d)	Blocking and bracing of radioactive material packages	HM Other	<b>MC</b>
177.843(a)	Failing to survey radioactive material vehicle after each use	HM Other	<b>MC</b>
177.843(b)	Violation of "radioactive material only" vehicle marking	Markings	<b>MC</b>
177.848(d)	Prohibited load/transport/storage combination	Fire Hazard	<b>MC</b>

177.848(e)(3)	Prohibited loading combination	Fire Hazard	<b>MC</b>
177.848(f)	Class 1 load separation or segregation	HM Other	<b>MC</b>
177.854(d)(2)	Damaged container not repaired as required	Cargo Protection	<b>RP</b>
177.870(c)	Transporting class 1 explosive in passenger space of vehicle	Other Cargo	<b>MC</b>
178.2(a)(2)	Improper packaging	Package Integrity	S
178.2(c)	Package notification	Package Integrity	S
178.3(a)(4)	Improper size letters on markings	Package Integrity	S
178.245-4	DOT51 integrity and securement	Package Integrity	S
178.245-5	DOT51 valve protection	Package Integrity	S
178.245-6	DOT51 ID plate	Package Integrity	S
178.245-6(a)	DOT51 name plate markings	Package Integrity	S
178.245-6(b)	Tank outlets not marked	Package Integrity	<b>RP</b>
178.251	General design/construction DOT 56 (§178.252) DOT 57 (§178.253)	Package Integrity	S
178.251-4	DOT 56/57 integrity and securement	Package Integrity	S
178.251-7	DOT 56/57 ID plate	Package Integrity	S
178.251-7(b)	DOT 56/57 spec markings	Package Integrity	S
178.253-2	DOT 57 manhole	Package Integrity	S
178.253-3	DOT 57 valve protection	Package Integrity	S
178.255-1	DOT 60 manhole	Package Integrity	S
178.255-4	DOT 60 manhole	Package Integrity	S
178.255-7	DOT 60 valve protection	Package Integrity	S
178.255-14	DOT 60 ID plate	Package Integrity	S
178.270-1	IM101/102 general design	Package Integrity	S
178.270-11(d)(1)	IM101/102 pressure relief	Package Integrity	S

178.270-13	IM101/102 testing	Package Integrity	S
178.270-14	IM101/102 spec plate	Package Integrity	S
178.270-4	Structural integrity	Package Integrity	S
178.270-6	IM 101/102 frames	Package Integrity	S
178.270-8	IM101/102 valve protection	Package Integrity	S
178.270-9	IM101/102 manholes	Package Integrity	S
178.336-10	Protecting of fittings MC330	Package Integrity	O
178.336-13	Anchoring of tank MC330	Package Integrity	O
178.336-17	Metal ID plate marking MC330	Package Integrity	S
178.336-17(a)	Certification plate MC330	Package Integrity	S
178.336-9(a)	Safety relief devices MC330	Package Integrity	S
178.336-9(c)	Marking of inlets/outlets MC330	Package Integrity	O
178.337-1(d)	Reflective design	Package Integrity	O
178.337-8(a)	Outlets general requirements MC331	Package Integrity	O
178.337-8(a)(2)	Outlets MC331	Package Integrity	O
178.337-8(a)(3)	Internal or back flow valve MC331	Package Integrity	O
178.337-8(a)(4)	Outlets MC331	Package Integrity	O
178.337-8(a)(4)(i)	Remote closure device greater than 3500 gallons MC331	Package Integrity	O
178.337-8(a)(4)(ii)	Remote closure device less than 3500 gallons MC331	Package Integrity	O
178.337-9	Pressure relief devices MC331	Package Integrity	O
178.337-9(c)	Marking inlets/outlets MC331	Package Integrity	O
178.337-10(a)	Protection of fittings MC331	Package Integrity	O
178.337-10(c)	Rear end protection MC331	Package Integrity	O
178.337-10(d)	Rear end protection MC331	Package Integrity	O

178.337-11(a)	Emergency discharge control equipment (§ 173.315(n)*)	Package Integrity	O
178.337-11(b)	Shut off valves MC331	Package Integrity	O
178.337-13	MC331 supports and anchoring	Package Integrity	O
178.337-17	Metal ID plate missing MC331	Package Integrity	O
178.337-17(a)	Metal ID plate missing MC331	Package Integrity	O
178.337-18(b)	Outlets MC331	Package Integrity	O
178.338-6	Manhole MC338	Package Integrity	O
178.338-8	Pressure relief devices MC338	Package Integrity	O
178.338-10(a)	Protection of fittings MC338	Package Integrity	O
178.338-10(c)	Rear end protection MC338	Package Integrity	O
178.338-10(d)	Ground clearance MC338	Package Integrity	O
178.338-11(b)	Manual shutoff valve MC338	Package Integrity	O
178.338-11(c)	Internal valve MC338	Package Integrity	O
178.338-11(c)(1)	Remote control greater than 3500 gallons MC338	Package Integrity	O
178.338-11(c)(2)	Remote control less than 3500 gallons MC338	Package Integrity	O
178.338-11(c)(2)(i)	Remote control greater than 3500 gallons MC338	Package Integrity	O
178.338-11(c)(2)(ii)	Remote control less than 3500 gallons MC338	Package Integrity	O
178.338-12	Shear section MC338	Package Integrity	O
178.338-13	Supports and anchoring MC338	Package Integrity	O
178.338-18(a)	Name plate/Specification plate missing MC338	Package Integrity	O
178.338-18(b)	Specification plate missing MC338	Package Integrity	O
178.340-10(b)	MC306/307/312 metal certification plate missing	Package Integrity	O
178.340-6	MC306/307/312 supports and anchoring	Package Integrity	O
178.340-7(a)	MC306/307/312 ring stiffeners	Package Integrity	O

178.340-7(c)	MC306/307/312 double bulkhead drain	Package Integrity	O
178.340-7(d)(2)	MC306/307/312 ring stiffener drain hole	Package Integrity	O
178.340-8(a)	MC306/307/312 appurtenances attachment	Package Integrity	O
178.340-8(b)	MC306/307/312 rear end protection	Package Integrity	O
178.340-8(c)	MC306/307/312 overturn protection	Package Integrity	O
178.340-8(d)	MC306/307/312 piping protection	Package Integrity	O
178.340-8(d)(1)	MC306/307/312 piping protection	Package Integrity	O
178.340-8(d)(2)	MC306/307/312 minimum road clearance	Package Integrity	O
178.341-3(a)	MC306 no manhole closure	Package Integrity	O
178.341-4	MC306 venting	Package Integrity	O
178.341-4(d)(1)	MC306 inadequate emergency venting	Package Integrity	O
178.341-4(d)(2)	MC306 pressure activated vents	Package Integrity	O
178.341-4(d)(3)	MC306 no fusible venting	Package Integrity	O
178.341-5	MC306 internal valves	Package Integrity	O
178.341-5(a)	MC306 internal valves	Package Integrity	O
178.341-5(a)(1)	MC306 heat actuated safety	Package Integrity	O
178.341-5(a)(2)	MC306 remote control shutoff	Package Integrity	O
178.341-8(d)	MC306 protection shear	Package Integrity	O
178.342-3	MC307 manhole closure	Package Integrity	O
178.342-4	MC307 venting	Package Integrity	O
178.342-4(b)	Inadequate venting capacity	Package Integrity	O
178.342-5(a)	MC307 internal valve	Package Integrity	O
178.342-5(a)(1)	MC307 heat actuated safety	Package Integrity	O
178.342-5(a)(2)	MC307 remote control shutoff	Package Integrity	O

178.343-3	Manhole closure MC312	Package Integrity	O
178.343-4	Venting MC312 (show calculations)	Package Integrity	O
178.343-5(a)	MC312 top outlet and valve	Package Integrity	O
178.343-5(b)(1)	MC312 bottom valve/piping protection	Package Integrity	O
178.345-1(i)(2)	DOT 406, 407, 412 double bulkhead drain	Package Integrity	O
178.345-5(a)	DOT406/407/412 manhole if required	Package Integrity	O
178.345-5(d)	DOT406/407/412 manhole securement	Package Integrity	O
178.345-5(e)	DOT406/407/412 manhole marking	Package Integrity	O
178.345-6	DOT406/407/412 supports and anchoring	Package Integrity	O
178.345-7(d)(4)	DOT406/407/412 ring stiffener drain	Package Integrity	O
178.345-7(d)(5)	DOT406, 407, 412 ring stiffener types	Package Integrity	O
178.345-8(a)	DOT406/407/412 accident protection	Package Integrity	O
178.345-8(a)(5)	DOT406/407/412 minimum road clearance	Package Integrity	O
178.345-8(b)	DOT406/407/412 bottom damage protection	Package Integrity	O
178.345-8(c)	DOT406/407/412 rollover damage protection	Package Integrity	O
178.345-8(d)	DOT406/407/412 rear end protection	Package Integrity	O
178.345-10	DOT406/407/412 pressure relief	Package Integrity	O
178.345-11(b)	DOT406/407/412 tank valves	Package Integrity	O
178.345-11(b)(1)	DOT406/407/412 remote control	Package Integrity	O
178.345-11(b)(1)(i)	DOT406/407/412 remote control	Package Integrity	O
178.345-11(b)(1)(ii)	DOT406/407/412 thermal and remote	Package Integrity	O
178.345-11(b)(1)(iii)	DOT406/407/412 thermal and remote	Package Integrity	O
178.345-14(b)	DOT406/407/412 name plate	Package Integrity	O
178.345-14(c)	DOT406/407/412 specification plate	Package Integrity	O

178.345-14(d)	DOT406, 407, 412 single name/specification plate	Package Integrity	O
178.345-15(d)	DOT406/407/412	Package Integrity	O
178.504(b)(5)	Aluminum drums	Package Integrity	O
178.703(a)	Intermediate bulk container (IBC) manufacturer markings	Package Integrity	S
178.703(b)	Intermediate bulk container additional markings	Package Integrity	S
178.704(c)	Intermediate bulk container	Package Integrity	S
178.704(e)	Intermediate bulk container bottom discharge valve protection	Package Integrity	O
178.800(c)(6)	Intermediate bulk container test dates	Package Integrity	O
180.205(c)	Periodic re-qualification of cylinders	Package Testing	O
180.213(d)	Re-qualification markings	Package Testing	S
180.352(b)	Intermediate bulk container retest or inspection	Package Testing	S
180.352(d)	Intermediate bulk container retest date marking	Package Testing	S
180.352(e)	Intermediate bulk container retest date marking	Package Testing	S
180.405(a)	Unauthorized cargo tank used to transport HM	Package Testing	<b>MC</b>
180.405(b)	Cargo tank specifications	Package Testing	O
180.405(g)	Failing to equip a cargo tank w/ manhole assembly	Package Testing	O
180.405(j)	Cargo tank withdrawal certification	Package Testing	O
180.407(a)(1)	Cargo tank periodic test and inspection	Package Testing	O
180.407(b)(1)	Using tank not retested after showing evidence of unsafe condition.	Package Testing	O
180.407(b)(2)	Using tank not retested after accident and damage	Package Testing	O
180.407(c)	Failing to periodically test and inspect cargo tank	Package Testing	O
180.415	Failing to mark test date on cargo tank	Package Testing	O
180.415(b)	Cargo tank test or inspection markings	Package Testing	O

180.416(f)(2)	Fail to mark new/repaired delivery hose with month/year of pressure test	Package Testing	O
180.605	Periodic testing of portable tanks	Package Testing	O
180.605(c)	Portable tank retest schedule (out of date)	Package Testing	O
180.605(k)	Test date marking	Package Testing	O
385.403	No HM Safety Permit	Documentation	<b>MC</b>
392.2	Size and weight (§ 392.2W*)	Other Cargo	
392.9	Driver load securement	Load Securement	
392.9(a)	Failing to secure load	Load Securement	
392.9(a)(1)	Failing to secure cargo/§§ 393.100-393.106	Load Securement	
392.9(a)(2)	Failing to secure vehicle equipment	Load Securement	
392.9(a)(3)	Driver's view/movement is obstructed	Other Cargo	
392.9(b)(2)	Inspect cargo within 50 miles of start	Load Securement	
392.9(b)(3)	Reexamine cargo and load securement devices during transportation	Load Securement	
392.62(c)(1)	Bus — baggage/freight restricts driver operation	Load Securement	
392.62(c)(2)	Bus — Exit(s) obstructed by baggage/freight	Load Securement	
392.62(c)(3)	Passengers not protected from falling baggage	Load Securement	
392.63	Pushing/towing a loaded bus	Other Cargo	
393.71(b)(3)	Improper weight distribution drive-away/towaway	Other Cargo	
393.87	No flag on projecting load	Load Securement	
393.87(a)	Warning flag required on projecting load	Other Cargo	
393.87(b)	Improper warning flag placement	Other Cargo	
393.1	No or improper load securement	Load Securement	
393.100(a)	No or improper load securement	Load Securement	

393.100(b)	Leaking/spilling/blowing/falling cargo	Load Securement	
393.100(c)	Failure to prevent cargo shifting	Load Securement	
393.102	Improper securement system (tiedown assembly)	Load Securement	
393.102(a)	Improper securement system (tiedown assemblies)	Load Securement	
393.102(a)(1)(i)	Insufficient means to prevent forward movement (§ 393.102(a)(1)*)	Load Securement	
393.102(a)(1)(ii)	Insufficient means to prevent rearward movement (§ 393.102(a)(2)*)	Load Securement	
393.102(a)(1)(iii)	Insufficient means to prevent lateral movement (§ 393.102(a)(3)*)	Load Securement	
393.102(b)	Insufficient means to prevent vertical movement	Load Securement	
393.102(c)	No equivalent means of securement	Load Securement	
393.104	Vehicle not equipped against lateral movement of cargo	Load Securement	
393.104(a)	Inadequate/damaged securement device/system	Load Securement	
393.104(b)	Damaged securement system/tiedowns	Load Securement	
393.104(c)	Damaged vehicle structures/anchor points	Load Securement	
393.104(d)	Damaged dunnage/bars/blocking-bracing	Load Securement	
393.104(f)(1)	Knotted tiedown	Load Securement	
393.104(f)(2)	Use of tiedown with improper repair.	Load Securement	
393.104(f)(3)	Loose/unfastened tiedown.	Load Securement	
393.104(f)(4)	No edge protection for tiedowns	Load Securement	
393.106(a)	No/improper front end structure/headerboard	Load Securement	
393.106(b)	Cargo not immobilized or secured	Load Securement	
393.106(c)(1)	No means to prevent cargo from rolling	Load Securement	
393.106(c)(2)	Cargo without direct contact/prevention from shifting	Load Securement	

393.106(d)	Insufficient aggregate working load limit	Load Securement	
Y 393.110	Failing to meet minimum tiedown requirements	Load Securement	
393.110(b)	Insufficient tiedowns; without headerboard/blocking	Load Securement	
393.110(c)	Insufficient tiedowns; with headerboard/blocking	Load Securement	
393.110(d)	Large/odd-shaped cargo not adequately secured	Load Securement	
393.112	Tiedown not adjustable by driver	Load Securement	
393.114	No/improper front end structure	Load Securement	
393.114(b)(1)	Insufficient height for front-end structure	Load Securement	
393.114(b)(2)	Insufficient width for front-end structure	Load Securement	
393.114(d)	Front-end structure with large opening(s)	Load Securement	
393.116	No/improper securement of logs	Load Securement	
393.116(d)(1)	Short; over 1/3 length past structure	Load Securement	
393.116(d)(2)	Short, insufficient/no tiedowns	Load Securement	
393.116(d)(3)	Short, tiedowns improperly positioned	Load Securement	
393.116(d)(4)	Short, no center stakes/high log not secured	Load Securement	
393.116(e)	Short, length; improper securement	Load Securement	
393.118	No/improper lumber/building materials. securement	Load Securement	
393.118(b)	Improper placement of bundles	Load Securement	
393.118(d)	Insufficient protection against lateral movement	Load Securement	
393.118(d)(3)	Insufficient/improper arrangement of tiedowns	Load Securement	
393.12	No/improper securement of metal coils	Load Securement	
393.120(b)(1)	Coil/vertical improper securement	Load Securement	
393.120(b)(2)	Coils, rows, eyes vertical; improper secure.	Load Securement	

393.120(c)(1)	Coil/eye crosswise improper securement	Load Securement	
393.120(c)(2)	X-pattern on coil(s) with eyes crosswise	Load Securement	
393.120(d)(1)	Coil with eye lengthwise—improper securement	Load Securement	
393.120(d)(4)	Coils, rows, eyes length—improper securement.	Load Securement	
393.120(e)	No protection against shifting/tipping	Load Securement	
393.122	No/improper securement of paper rolls	Load Securement	
393.122(b)	Rolls vertical—improper securement	Load Securement	
393.122(c)	Rolls vertical /split—improper securement	Load Securement	
393.122(d)	Rolls vertical /stacked—improper securement	Load Securement	
393.122(e)	Rolls crosswise—improper securement	Load Securement	
393.122(f)	Rolls crosswise/stacked load—improperly secured	Load Securement	
393.122(g)	Rolls length—improper securement	Load Securement	
393.122(h)	Rolls lengthwise/stacked—improper securement	Load Securement	
393.122(i)	Improper securement—rolls on flatbed/curb-side	Load Securement	
393.124	No/improper securement of concrete pipe	Load Securement	
393.124(b)	Insufficient working load limit—concrete pipes	Load Securement	
393.124(c)	Improper blocking of concrete pipe	Load Securement	
393.124(d)	Improper arrangement of concrete pipe	Load Securement	
393.124(e)	Improper securement, up to 45 in. diameter	Load Securement	
393.124(f)	Improper securement, greater than 45 inch diameter	Load Securement	
393.126	Fail to ensure intermodal container secured	Load Securement	
393.126(b)	Damaged/missing tiedown/securement device	Load Securement	

393.126(c)(1)	Lower corners not on vehicle/structure	Load Securement	
393.126(c)(2)	All corners of chassis not secured	Load Securement	
393.126(c)(3)	Front and rear not secured independently	Load Securement	
393.126(d)(1)	Empty container not properly positioned	Load Securement	
393.126(d)(2)	Empty container, more than 5 foot overhang	Load Securement	
393.126(d)(4)	Empty container—not properly secured	Load Securement	
393.128	No/improper securement of vehicles	Load Securement	
393.128(b)(1)	Vehicle not secured—front and rear	Load Securement	
393.128(b)(2)	Tiedown(s) not affixed to mounting points.	Load Securement	
393.128(b)(3)	Tiedown(s) not over/around wheels.	Load Securement	
393.13	No/improper heavy vehicle/machine securement	Load Securement	
393.130(b)	Item not properly prepared for transport	Load Securement	
393.130(c)	Improper restraint/securement of item	Load Securement	
393.132	No/improper securement of crushed vehicles	Load Securement	
393.132(b)	Prohibited use of synthetic webbing.	Load Securement	
393.132(c)	Insufficient tiedowns per stack cars	Load Securement	
393.132(c)(5)	Insufficient means to retain loose parts	Load Securement	
393.134	No/improper securement of roll/hook container	Load Securement	
393.134(b)(1)	No blocking against forward movement	Load Securement	
393.134(b)(2)	Container not secured to front of vehicle	Load Securement	
393.134(b)(3)	Rear of container not properly secured	Load Securement	
393.136	No/improper securement of large boulders	Load Securement	
393.136(b)	Improper placement/positioning for boulder	Load Securement	
393.136(c)(1)	Use of synthetic webbing to secure boulder	Load Securement	

393.136(d)	Improper securement—cubic boulder	Load Securement	
393.136(e)	Improper securement—non-cubic boulder with base	Load Securement	
393.136(f)	Improper securement—non-cubic boulder without base	Load Securement	
397.1(a)	Driver/carrier must obey part 397	HM Other	
397.1(b)	Failing to require employees to know/obey part 397	HM Other	
397.2	Must comply with rules in parts 390-397—transporting HM	HM Other	
397.7(a)	Improperly parked explosives vehicle	Fire Hazard	
397.7(b)	Improperly parked HM vehicle	Fire Hazard	
397.11(a)	HM vehicle operated near open fire	Fire Hazard	
397.11(b)	HM vehicle parked within 300 feet of fire	Fire Hazard	
397.15	HM vehicle fueling violation	Fire Hazard	
397.17	No tire examination on HM vehicle	HM Other	
397.17(a)	Failing to examine tires of HM vehicle at required intervals	HM Other	
397.17(b)	Operating HM vehicle with flat/leaking/improperly inflated tire	HM Other	
397.17(c)	Operating HM vehicle with overheated tire	Fire Hazard	
397.19	No instructions/documents when transporting Division 1.1/1.2/1.3 (explosive) materials	Documentation	
397.19(c)	Required documents not in possession—explosive materials	Documentation	
397.67	HM vehicle routing violation (non-radioactive materials)	HM Route	
397.67(d)	Failing to prepare written route plan for explosives	HM Route	<b>C</b>
397.101(b)	Radioactive materials vehicle not on preferred route	HM Route	<b>C</b>
397.101(d)	No or incomplete route plan—radioactive materials	HM Route	<b>C</b>
397.101(e)(2)	Copy of training record/route (radioactive materials)	HM Route	<b>C</b>
397.101(e)(3)	Driver not in possession of written route plan	HM Route	<b>C</b>

