CSA 2010 - The Cargo-Related BASIC is all about securement and documentation

This BASIC (Behavioral Analysis and Safety Improvement Category) in the comprehensive Safety Analysis 2010 (CSA 2010) program is entirely about the cargo. The two areas considered in this BASIC are cargo securement, and the handling and transporting of hazardous materials.

What goes into the Cargo-Related BASIC?

The Cargo-Related BASIC calculates driver and carrier performance using violations related to cargo securement and the hazardous material regulations noted on roadside inspection reports. This has nothing to do with receiving a "citation" or "ticket." Citations are a totally different matter and involve someone paying a fine for the violation.

To sum this up, if a violation of the cargo securement and the hazardous material regulations is noted on a roadside inspection report, the violation will be entered into the carrier’s Cargo-Related BASIC in the CSA 2010 data system. If the violation is one that the driver could have prevented, the driver will have the violation placed into his or her personal data as well (there are several technical, shipper, and carrier-related violations that drivers are not held responsible for in this BASIC).

Examples of hazardous materials violations that will be placed in the Cargo-Related BASIC include: cargo or cargo tank documentation not correct (when carrying a hazardous material), improper marking of a hazardous materials container or vehicle, improper placarding (wrong placard, placard missing, etc.), no or improper emergency information with the driver when carrying a hazardous material shipment, an unsecure container of hazardous material, and an improper or damaged package containing a hazardous material. Cargo securement violations that will be placed in this BASIC include: operating an oversize or overweight vehicle, failing to properly flag a projecting load, and failing to secure a load in accordance with Subpart I of Part 393. There are 27 pages of violations in the table the FMCSA uses for this BASIC, 19 of which are dedicated to hazardous materials violations.

Tracking and measuring the Cargo-Related violations

Whenever a violation related to the cargo is placed into the system, the violation is "valued" in the driver and carrier Safety Measurement Systems (SMS) using severity and time weighting. The severity weighting is based on the violation’s relationship to crash causation (having an unsecure load is a 10, which is the maximum, while having a simple documentation error has a severity of 1, the minimum). If the violation led to the vehicle being placed out of service, the severity weight is increased by two.

The high severity violations in this BASIC include having an unsecure package of hazardous materials in the vehicle, size and weight violations, failure to properly secure cargo load, failure to check load securement while enroute, failure to provide forward securement for cargo, and any violation of Subpart I of Part 393 (the general and cargo-specific securement requirements).

Time weighting involves placing more value on violations that have happened recently. All violations remain in the carrier’s data for 24 months (36 months for drivers), but a violation’s “value” reduces over time due to the time weighting system. Events that occurred in the last six months are given a time weight of 3, events that took place between 6 and 12 months ago are given a time weight of 2, and anything that happened over a year ago is given a time weight of 1 (driver time weighting is slightly different).

To determine the “value” of a violation, the total severity weighting for the violation (the predetermined severity weight of the violation plus two if the vehicle was placed out of service) is multiplied by the time weighting to determine the “value” of the violation in the SMS.
Scoring carriers

If a carrier has more than five vehicle inspections or one that notes a violation of the hazardous materials or cargo securement regulations, the value for all violations is totaled, and then the total is divided by the “time weighted relevant inspections.” The “time weighted relevant inspections” are the vehicle inspections the carrier has undergone (good and bad) that have been “time weighted” using the same time weighting discussed above.

This “normalizing” process generates a BASIC Measure (violation value per inspection) that allows all carriers to be compared to each other.

Once a carrier’s BASIC Measure has been determined, the carrier is then compared to other carriers in its “Peer Group.” The Peer Groups are based on the total number of driver inspections. For instance, carriers with 5 to 10 vehicle inspections are compared to all other carriers with 5 to 10 vehicle inspections. Carriers are then “Percentile Ranked” inside their Peer Group based on their BASIC Measure. The carrier with the lowest BASIC Measure in the Peer Group is ranked at 0, while the carrier with the highest BASIC Measure is ranked at 100. All other carriers in the Peer Group fit in between based on their BASIC Measure. This percentile ranking is the carrier’s actual “BASIC Score.”

If a carrier’s BASIC Score is above a predetermined threshold, an intervention will be triggered. Interventions range from a warning letter to a full Compliance Review. The basic principle is the worse the carrier’s score, the more severe the intervention.

Scoring drivers

Drivers’ Cargo-Related BASIC Measures are determined by the same process. First, all violation values that have been assigned to the driver in the Cargo-Related BASIC are totaled and then divided by the “time weighted relevant inspections.”

The BASIC Measures are then percentile ranked in Peer Groups based on the number of driver inspections the driver has undergone. Within each Peer Group, drivers are assigned percentile rankings from 0 (representing the lowest BASIC Measure) to 100 (representing the highest BASIC Measure). This Percentile Ranking is the driver’s BASIC Score. Two points about the driver’s BASIC Measures and Scores: First, these are going to be confidential; no one will be able to view them but FMCSA officials and investigators, and second, the driver interventions are not directly based on the driver’s score. Drivers found with high scores during other enforcement activity (such as during an audit) will be subject to interventions.

How do I keep this BASIC Score low?

The solution to problems in this area is simple. Train, train, train, and then train some more.

You might say that faulty cargo securement devices or poor packaging can lead to violations in this area, not just driver error. While that may be true, wouldn’t a well trained driver notice that the securement device has fallen below standards or that the packaging is not adequate?

The other part of this is making sure that you support the driver on these issues. Support includes providing “cheat sheets” and “handbooks” that have been developed with the help of the company’s top drivers, providing a 24-hour support number for drivers to call with hazardous materials and securement questions, and providing drivers with the ability to replace defective securement devices.

Due to the complexity of the regulations related to the flatbed and hazardous materials communities, another creative method of supporting new drivers in these areas is to provide new drivers with a “mentor” that they feel comfortable calling with questions (not many new drivers want to ask a company official a “stupid” question).

Those of you in the van and refrigerated communities shouldn’t be snickering. The regulations require that cargo inside a van-type trailer be secured against movement in all four directions. If a driver neglects to put logistics straps or load bars across the back of a load that does not reach the back doors, you will end up with a violation for “failure to secure.” The bottom line is that you need to train your drivers on securement as well.
Finally, develop guidance for your drivers when it comes to scaling and measuring loads (an example would be requiring drivers to immediately scale any shipment of unknown weight, any shipment where the weight is in question, or any shipment over 40,000 pounds on a five-axle). Remember to include a “support component” as part of this guidance (who to call when they cannot locate a scale or they are overweight or oversize).

The keys to staying out of trouble in this BASIC are making sure that: 1) your drivers know what they are doing when it comes to hazardous materials and cargo securement, and 2) they are willing to ask you questions when they come up, rather than having to ask officers questions after a violation has been written.