

What Carriers Need to Know

The Safety Measurement System Regulates CSA's Heartbeat

By Rip Watson
Senior Reporter

The Safety Measurement System and its seven all-inclusive categories form the heart of the Federal Motor Carrier Safety Administration's new Comprehensive Safety Analysis program, which will affect every U.S. truck fleet. Those groups, called Behavioral Analysis Safety Improvement Categories, or BASIC, embrace all aspects of trucking safety: unsafe driving; fatigued driving; driver fitness; drug and alcohol use; vehicle maintenance; load securement and size-and-weight faults; and crash history.

Under CSA, every safety violation is weighted on a scale of 1 to 10, with 10 representing the most severe.

Offenses such as fatigued driving count the most against carriers and drivers because they have shown a high correlation with elevated crash risk, FMCSA explained in background materials. Lesser violations, such as failing to carry a medical certificate, have the lowest score of 1.

The agency uses a formula to determine a score for each fleet. The formula is based on the number and severity of violations, and when they occurred, with more recent events given a greater weight.

The frequency and severity of violations are divided either by the number of power units operated or the number of inspections of its drivers, depending on the BASIC.

Fleets then are ranked relative to each other and given a percentage score.

To assure comparability among carriers, FMCSA created five "peer groups" based on fleet size. All carriers are assigned to one of those groups.

FMCSA will use these scores to determine which companies to target for interventions, based on specific safety problems in

one or more of the categories.

The higher a carrier's score within its peer group, the more likely FMCSA will intervene to make sure the fleet takes steps to correct its safety problems.

Interventions range from an initial "warning" letter to the ultimate sanction, a complete shutdown of carrier operations.

The Safety Measurement System, or SMS, and its seven BASIC safety categories replace the current SafeStat system, which covers only four categories of violations and does not assess weight violations according to crash-related risk, as does the new system.

"By taking all of the data at roadside and dividing it into seven behavioral areas, as opposed to just taking some of the data and dividing it into four broad areas, we're getting a much more granular approach with the new measurement system," said Gary Woodford, FMCSA's program manager for CSA. "It's able to show us carrier violations and driver violations that heretofore would have been under the radar screen of SafeStat."

Experts agree that carriers can prepare for CSA best by learning the new system, continuing to stress safety and moving to correct deficiencies before the program takes effect.

"This isn't a matter of waking people up to safety," said Steve Bryan, CEO of Vigillo Inc., Portland, Ore., a vendor that offers CSA advisory services to carriers. "Carriers care a lot about safety. CSA changes the rules. Now in 2010, everything counts."

In the past, Bryan said, carriers focused heavily on safety violations that could take the truck off the road through out-of-service orders — violations so severe they elevate the likelihood of a breakdown or crash.

Now, CSA scores are the thing to watch, because even minor violations count against the carrier. Nothing is trivial anymore.

"Carriers need to see their safety scores," Bryan said. "Carriers that are under SafeStat and thought to be safe can be at risk in one or two BASICs."

FMCSA has yet to make the scores public and has not disclosed a date for doing so. For clients, however, vendors such as Vigillo aggregate publicly available data and runs them through a program that replicates federal scoring.

Bryan noted that 76% of the carriers using Vigillo's system were in danger of triggering an intervention on at least one BASIC.

Under SafeStat, by comparison, just 1.5% of carriers had such poor records that FMCSA initiated compliance reviews.

"When CSA 2010 goes live, everything will instantly be scored on the previous 24 months of data," Bryan said. "Most of that performance is already in the books."

In fact, FMCSA already has calculated carrier scores from existing SafeStat data. The scores, however, will not be available to carriers, or the public, until Nov. 30.

Monitor Driver Safety and BASIC Scores

Annette Sandberg, a former FMCSA administrator who now heads TransSafe Consulting, also stressed the importance of combing through safety data on the record today with special attention to driver behavior. Driver safety behavior will have a direct bearing on their carrier's score.

"The most important thing is that carriers look at the data as a whole to see if there are trends for certain drivers," Sandberg said. "Many carriers are finding a handful of drivers are accumulating most of their bad data. Out of a group of 1,000 drivers, there may be 10 to 15 that are the bad ones."

SAFETY MEASUREMENT SYSTEM

- ❖ Once a month, SMS will evaluate the carrier's past 24 months of roadside violations and crash reports.
- ❖ The carrier will receive a fresh safety score, based on seven "behavioral" categories (see BASICS, p. A5).
- ❖ Recent violations and violations that correlate most closely to crashes will be weighted most heavily in the scoring.
- ❖ Carrier scores will be ranked relative to all the others in its peer group. This ranking will help authorities see which carriers have specific safety problems.

She said managers must decide what to do about those bad drivers — disciplining them in hopes they will correct their behavior or terminating them.

Jimmy Sill, chief executive officer of Driver Compliance Inc., a vendor in Diboll, Texas, believes the key to CSA compliance is consistent with the way most managers conduct trucking today. They probably have effective risk-management systems. Now they need to get to know the new rules.

"Companies that manage safety from top down and bottom up are the ones we want to have around," Sill said. They are the ones making the number of fatalities fewer and fewer every year.

"CSA 2010 is going to shake up the field for the renegade companies," he added. "The good ol' boy, mom-and-pop companies that are doing business the way Grandpa did it are going to go away."

Sill did say that carriers in general agree with the government's goals for CSA, which are to further reduce fatalities, injuries and accidents.

The new scoring system's approach to safety allows companies to improve their scores by having "clean" roadside inspections and reducing accidents.

FMCSA also created the five "peer groups" based on the number of power units — trucks, tractors, hazardous material tanker trucks, motor coaches and school buses — in each fleet.

The smallest of these peer groups is five or fewer power units, with the second group including six to 15 power units and the third encompassing 16 to 50 power units. The second largest group is 51 to 500 units and the largest is 501 or more.

Taking a closer look at the BASICS, each of the nearly 900 infractions that can be counted against carriers are assigned to one of the seven categories.

The unsafe driving BASIC includes infractions such as reckless driving, speeding and traffic violations.

Fatigued driving covers hours-of-service and logbook violations and driving while ill.

Driver fitness includes infractions such as failure to have the proper commercial license or medical qualifications.

Drug and alcohol use covers illegal use of controlled substances or improper alcohol consumption.

The vehicle maintenance category measures mechanical defects, including brakes and lights.

Cargo-related is the category for improperly secured loads and unsafe shipments of hazardous materials.

Finally, the crash history includes every accident reportable to the Department of Transportation.

Like the other violations, crashes are ranked on severity, with

(Continued on page A12)

(Continued from page A11)

the worst scores associated with accidents that have deaths, injuries and hazardous materials releases.

Sandberg said driver fatigue, unsafe driving and drug and alcohol offenses are especially important, since they have the most severe penalties, Sandberg said.

Bryan said crashes and unsafe driving are the BASICS that generate the most interest.

“In the unsafe driving area, the number one violation is speeding,” Bryan said. “If I were to counsel the industry about one thing to cure it would be speeding. If you are wanting to get scores lowered, that is what I would do.”

Both Sandberg and Bryan advised flatbed carriers to pay attention to load securement, since violations in that area were not counted under SafeStat but are counted under the SMS.

A new system of interventions goes hand-in-hand with the BASICS.

CSA intervention choices include a warning letter, targeted roadside inspection of a carrier, as well as on and off-site investigations.

Fleets can be asked to file cooperative safety plans, or be served with notices of violations, claims or be ordered to shut down.

Sandberg and Sill highlighted issues that need to be watched as the program unfolds.

“The problem is that under CSA 2010, warnings and actual citations are treated the same way,” Sandberg said. “Typically if you get a ticket you can adjudicate it. You can’t adjudicate a warning.”

Another potential issue, she said, is data accuracy.

PROPOSED CARRIER RATING SYSTEM

As CSA matures, FMCSA plans to replace SafeStat’s three-tier carrier safety fitness rating with a new safety fitness determination (SFD). A rulemaking could come in 2012, according to FMCSA.

- ❖ Old tiers: Satisfactory, Conditional, Unsatisfactory.
- ❖ Three new tiers: Continue Operation, Marginal, Unfit.
- ❖ SFD would be tied to carrier’s on-road safety performance, updated regularly.
- ❖ Unlike SafeStat, a compliance review would not be required to change rating.

She urged carriers to closely monitor their data to be certain that the number and severity of violations is accurate.

Another unresolved issue is the methodology. Carriers that run a large number of miles and have a small fleet are at greater risk of higher scores and more intervention because of increased crash risk as more miles are traveled, Sandberg said.

Sill said there are issues of interpretation, such as how to say with certainty that a driver is ill.

That point matters since a driver who is found to be ill counts as a 10, just like driving after being put out of service.

Sill also worried that each state could interpret other parts of the CSA program in different ways, adding to complications as the program gets under way.

Top 10 Violations
(showing preliminary severity weights)

DRIVER

- Log violation (2)
- Duty record not current (5)
- Speeding (5)
- No medical certificate in driver’s possession (1)
- Non-English-speaking driver (6)
- Driving after 14 hours on duty (7)
- Failing to use seat belts (1)
- False report of driver’s record of duty status (7)
- Driving more than 11 hours (7)
- Failure to obey traffic signal (5)

EQUIPMENT

- Inoperable lamp (6)
- Defective lighting (6)
- Size-and-weight violation (7)
- Tire tread depth (8)
- Brake hose (4)
- Parts inspection/repair (2)
- Oil leak (3)
- Operating CMV without inspection (3)
- No fire extinguisher (2)
- Brake out of adjustment (4)

HAZMAT

- Placard damaged (1)
- No copy of registration in vehicle (administrative violation)
- Vehicle not placarded (1)
- Package not secure in vehicle (10)
- Failing to provide carrier placards (shipper violation)
- Shipping paper accessibility (1)
- Emergency response information missing (1)
- No shipping papers (1)
- Emergency response information not available (1)
- No placards where required (1)