Comprehensive Safety Analysis (CSA) 2010

Status Update

Motor Carrier Safety Advisory Committee

June 2010
Agenda

• The Challenge
• Current Enforcement Model
• Better Way – CSA 2010
• Nine-State Field Test and Result
• Outreach
• Rollout Timeline
• Summary
The Challenge

• Mandate: Motor carriers’ safety fitness — Motor Carrier Safety Act of 1984
• Large & varied industry: 500K active bus & truck companies
• Limited Agency resources
• Result: We assess < 2 percent of industry/year
• Over 3 million roadside inspections annually
• Today, we use only a portion of this safety data in carrier assessments
  – SafeStat
• Major tool --- On-site compliance review
  – At a motor carrier’s facility; very labor intensive
  – Compliance review is required to issue a safety rating
  – Result: Contact only small percentage of carriers each year
A Better Way – CSA 2010

• Major proactive FMCSA safety initiative
  – Increase our contact with industry through increased efficiencies (Evidence: Contact by Government increases compliance)
  – Maximize FMCSA and State partner resources
  – Assess safety fitness of greater segment of industry
  – Bring about greater reduction in large truck and bus crashes
Safety Profile of Truck and Bus Industry

Entities Addressed By Current Process: Resource Limited

Additional Entities to be Influenced by CSA 2010

< Majority of crashes occur here >
CSA 2010 - Three Major Elements

• New Safety Measurement System (SMS)
  – More comprehensive than SafeStat and provides more detailed assessments

• Broader array of compliance interventions
  – To supplement the compliance review (CR)

• New safety fitness methodology
  – To decouple safety ratings from onsite reviews

Today
• SafeStat is used to prioritize carriers
• Identified carriers receive onsite CRs
• Only CRs yield safety ratings
1st component: Current Measurement System vs. New

SafeStat Safety Evaluation Areas (SEAs)

- Safety Management
- Vehicle
- Driver
- Accident

- Out-of-Service Violations
- Certain Moving Violations
- Crash Reports

SMS Behavior Analysis Safety Improvement Categories (BASICs)

- Driver Fitness
- Vehicle Maintenance
- Fatigued Driving
- Unsafe Driving
- Crash Indicator
- Cargo Related
- Controlled Substances/Alcohol

- All Safety Based Violations
- Weighted to Crash Risk
- Crash Reports

MCSAC, June 2010
2nd component: Broader Array of Interventions

- Early Interventions
  - Warning Letters
  - Targeted Roadside Inspections
- Investigations
  - Offsite
  - Onsite focused
  - Onsite comprehensive

- Follow-On Corrective Actions
  - Cooperative Safety Plan
  - Notice of Violation
  - Notice of Claim
  - Out-of-Service Order

Going from “What” to “Why”
2nd component: Broader Array of Interventions (Cont’d)

- Less time consuming and less resource intensive
- More carriers contacted; earlier
- Emphasis is on achieving compliance
3rd component: New Safety Fitness Determination

- SFD rule would de-couple safety ratings from compliance reviews
- SFD would be determined by safety violations:
  - Found through on-road safety performance – roadside inspections
  - Found through CSA 2010 interventions
  - Including Essential Safety Management and Fundamental Unfit Violations
- Updated monthly
- Projected increase in annual proposed “Unfit” SFDs
  - Current rating process: ~1,400
  - New SFD methodology: ~7,000
    - Five-fold increase
### Example Carrier – Proposed Unfit under SFD

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>On-Road Performance</th>
<th>Investigation Deficient Date</th>
<th>Safety Assessment</th>
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</thead>
<tbody>
<tr>
<td><strong>Unsafe Driving</strong></td>
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<td>100.0</td>
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<tr>
<td><strong>Fatigued Driving (Hours-of-Service)</strong></td>
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<tr>
<td><strong>Cargo Related</strong></td>
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<tr>
<td><strong>Insurance/Other</strong></td>
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</tr>
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</table>
3rd component: Safety Fitness Methodology (Cont’d)

- Draft NPRM withdrawn from OST Mar-22-2010
  - Evaluating options based on feedback from partners, stakeholders, and field test
  - Exposure metric for Unsafe Driving and Crash BASICs – vehicle miles travelled vs. power units
  - To ensure most effective SMS for identifying high risk carriers.

- May DOT Report on Significant Rulemakings
  - To OMB Oct-4-2010
  - Publish Jan-18-2011
Field Test and Results

Nine Test States:

- 30 month test initiated Jan-08
- Designed to test 2 of the 3 components
  - SMS
  - Interventions Process
- Original test states included 50% of CO, GA, MO, and NJ
- Added 100% states in spring and fall 2009
  MT, MN, KS, MD, and DE
- Test validity, efficiency and effectiveness
- Evaluation by University of Michigan (UMTRI)
Field Test and Results (Cont’d)

• **Warning letters are having a positive impact:**
  – Over 6,600 sent
  – Over 50% of recipients logged in to view their data and safety assessments
  – Feedback from test states indicate that some carriers appreciate the early alert and are modifying safety practices
Field Test and Results (Cont’d)

• Reaching its goal of contacting more carriers
  – Research shows more contacts equals improved safety performance
  – Up to 35% more carrier investigations
    • Test: 4.0 Investigations/Safety Investigator
    • Non-test: 2.5 Investigations/Safety Investigator

• Employing the full array of investigations
  – Investigations in test states have been done in the following proportions
    • Onsite Investigations – Comprehensive (~30%)
    • Onsite Investigations – Focused (~45%)
    • Offsite Investigations (~25%)
Field Test and Results (Cont’d)

• Following up with carriers
  – Nearly 50% of investigations result in one of following: Notice of Claim or Violation, Cooperative Safety Plan
  – Increased enforcement targeting Fatigued Driving and Vehicle Maintenance BASICs

• Increased driver enforcement
  – Applying NOVs and NOCs
    • Test: 3.5 Driver Enforcement/Safety Investigator
    • Non-test: 3.2 Driver Enforcement/Safety Investigator
SMS Effectiveness Testing: Timeline

Jan '04

24 Months of data for SMS Run

Identification Run Date
Jan '06

Jul '07

18 Months Post-Identification Crash Period
Field Test: SMS Effectiveness Results

Fatigue BASIC and high risk carriers

![Graph showing the relationship between BASIC percentile and crash rate per 1000 PUs for fatigued driving. The graph includes a linear trendline showing a positive correlation between BASIC percentile and crash rate. The y-axis represents crash rate (crashes per 1000 PUs), and the x-axis represents BASIC percentile. The graph also includes a national average line and a linear trendline for fatigued driving.]
Field Test Next Steps

• Formal test data collection in the four 50/50 States concludes June 2010
  – Remaining personnel fully trained in July

• Evaluation and metrics to date
  – Focused on efficiency
  – Designed to ensure uniform processes in test states, and
  – Overall management of the Field Test
Field Test Evaluation

• Independent 3rd party evaluator to analyze Field Test Results
  – Limited to evaluating SMS and Interventions process
    • Field test results exclude SFD impact from full model

• Evaluation will include:
  – How effective are interventions in improving the crash rates of carriers: CSA 2010 vs. SafeStat/CR model?
  – How effective are various interventions in getting carriers into compliance?
  – Are particular intervention types more effective with particular BASICs?
Outreach - Transparency

• Foundation laid for systematic CSA 2010 rollout
  – Implemented national outreach program
  – 11 public listening sessions; Federal Register notices
  – Website (660,000+) and email subscribers (9,785)
  – Radio and print media
  – Partner and stakeholder briefings nationwide
  – Field workforce readiness initiatives

• Listened carefully to partners, stakeholders, and field staff feedback

• Rollout schedule designed so “we do it right”
Rollout Timeline

• Revised rollout timeline from summer to fall 2010
  – In response to stakeholder input and field test “lessons learned”

• Apr-Nov 2010 --- Motor carrier Data Preview
  – Opportunity to correct unsafe behavior
  – Submit requests for data review

• July-2010 --- Train remaining personnel in four 50-50 test States
  – Nine States fully operating w/SMS and CSA 2010 interventions
Rollout Timeline

- **Nov-Dec 2010 ---**
  - Replace SafeStat with new SMS; available to public
  - Begin sending warning letters nationwide
  - Update roadside inspection selection system nationwide
  - Begin to phase-in four new elements into CR process in 41 States
    - **Focused compliance reviews** to reach more carriers
    - **Direct Notices of Violation** (NOV) to carriers with deficient Driver Fitness BASIC
    - **Red Flag Driver** process to increase driver focus
    - **New DSMS sampling** procedures to increase driver focus and improve carrier investigations
Rollout Timeline (Cont’d)

• Jan-2011 --- Publish NPRM
• Jan-Nov 2011 ---
  – Continue comprehensive partner/stakeholder outreach
  – Continue field workforce preparation
  – Complete interventions training & implementation – 41 States
A fully implemented CSA 2010 ---

- Better achieves our safety mandate
- Achieves greater efficiency for FMCSA/States
- Enables us to take more unsafe motor carriers off the road
- Requires greater on-road safety accountability
- Expect greater reduction in CMV crashes, fatalities, and injuries
Frequently Asked Questions
FAQs

- Will FMCSA or the CSA 2010 initiative assign safety ratings to individual CMV drivers?
  - No

- What is the Driver Safety Measurement System (DSMS)?
  - Internal enforcement tool used during motor carrier investigations
  - Results not available to employing motor carriers or public
FAQs

• **What is the Pre-Employment Screening Program (PSP)?**
  – Mandated by Congress irrespective of CSA 2010 effort
  – Screening tool that allows motor carriers and drivers to purchase inspection and crash history
    • 5 years Crashes, 3 years inspections
    • No rating or DOT assessment
  – Requires driver consent

• **Does a driver’s violation history at a previous employer impact a carrier’s Safety Measurement System (SMS) evaluation?**
  – No
FAQs

• Do tickets or warnings that drivers receive while operating their personal vehicles impact the new Safety Measurement System (SMS)?
  – No

• Will the Safety Measurement System (SMS) data related to carriers be available to the public?
  – Yes, beginning in late November or early December
  – Crash evaluation restricted from public view
FAQs

• Is there a way to request a review of potentially erroneous or improper violations on carrier and/or driver records
  – Yes, DataQs

• Do “clean inspections” count in the SMS?
  – Yes, they have a positive influence on results
  – FY 2009: One third of the over 3.5 million inspections had no violations
FAQs

• Why doesn’t the current CSA 2010 Data Review Website provide motor carriers with a good or bad “assessment” in the Safety Measurement System (SMS)BASICs?
  • SMS is still being refined based on the Operational Model Test
  • SMS results may differ based on these refinements
SMS Refinements Currently Under Consideration

- Effective and equitable measure of exposure for the Crash and Unsafe Driving BASICs
  - Power Units and Vehicle Miles Travelled (VMT)
- Safety Event Grouping
- Violation Severity Weights
- Other
In Summary:
CSA 2010 Roll-out Schedule – One More Time

April to August 2010: National Data Review
- Carrier review of violations by BASIC and crash data (April)
- Carrier preview of SMS results and safety assessment in BASICs (August)

Late November thru December 2010: SMS Replaces SafeStat
- FMCSA/States prioritize enforcement with SMS
- SMS results are available to industry/public
- Warning Letters are issued to carriers with deficient BASICs
- Roadside inspectors use SMS results to identify carriers for inspection
- Apply some key on-site investigation concepts from the operational model

2011: Interventions Implemented State-by-State and SFD NPRM
- SFD NPRM published
- Systematic introduction of new investigation types (e.g. off-site) and
- National training program to support new interventions process