Session 651 Don’t Wait for an Intervention – Use CSA “Safety Management Cycle” to Identify Opportunities

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Introduction

Motor carriers’ safety performance is measured via the Comprehensive Safety Accountability (CSA) initiative established in 2010. The CSA operation model is made up of three main elements: measurement, evaluation, and intervention. The focus of this session is on intervention. An investigative tool was introduced January 2013 by the Federal Motor Carrier Safety Administration (FMCSA). The investigative tool is called “Safety Management Cycle” (SMC).

The SMC tool is designed to help enforcement staff assess how well a motor carrier’s safety management controls support safe operations. It is customized to address each of the seven Behavior Analysis and Safety Improvement Categories (BASICS). The Safety Management Cycle can be used by motor carriers to identify opportunities to improve on-road safety performance.

A gap assessment was developed by Nancy Bendickson, Aon, based upon the Safety Management Cycle. This session will provide an overview of SMC and how the SMC gap assessment has been used to help clients gain an understanding of current state of safety management controls and identify enhancements to impact Safety Measurement Percentile and reduce crash potential.

Key Learning Outcomes:

• Introduce audience to CSA Safety Management Cycle.
• Overview of the SMC Gap Analysis model developed to evaluate safety management processes related to:
  o Policies and Procedures
  o Roles and Responsibilities
  o Qualification and Hiring
  o Training and Communication
  o Monitoring and Tracking
  o Meaningful Action
  o BASIC specific questions
• Case Study of SMC Gap Analysis
Safety Management Cycle

The FMCSA developed the Safety Management Cycle (SMC) to help safety investigators and motor carriers address motor carrier safety and compliance issues identified by roadside inspection performance. The SMC is process that looks at “why” the safety and compliance issues are taking place rather than just identifying the violation (the “what”). SMC is made up of six Safety Management Processes (SMPs). Each BASIC has a SMC tool that contains customized SMP to guide investigator and motor carrier in evaluation and identifying solutions to improve motor carrier’s safety operation. Historically, many motor carriers do not have comprehensive written policies or procedure manuals and the ANSI/ASSE Z15.1-2012 can provide the foundation for developing policies.


Safety Management Processes:

1. **Policies and Procedures** defines the “what” and “how” of a motor carrier’s operations. Policies provide the guidelines on how motor carriers and drivers behave in given situation while procedures explain how to accomplish policies. The American National Standard (ANSI) ANSI/ASSE Z15.1-2012 Safe Practices for Motor Vehicle Operations can provide the framework for policy and procedure development.
2. **Roles and Responsibilities** clearly define what each employee should do to successfully implement the policies and procedures.
3. **Qualification and Hiring** discusses recruiting and screening applicants to fulfill the roles and responsibilities for positions.
4. **Training and Communication** outlines a motor carrier’s communication of its policies, procedures, roles, and responsibilities so that everyone understands expectations and has the skills and adequate knowledge to perform their assigned function.
5. **Monitoring and Tracking** concentrates on the need to have system in place to monitor and track employee performance that enables organizations to be aware of their employees’ safety performance and compliance with its policies and procedures. The system will evaluate how the employees execute their roles and responsibilities. Monitoring represents the motor
carrier looking at the performance of their operation, while Tracking is assessing the data collected leading to Meaningful Action.

6. **Meaningful Action** gives motor carriers the tools to correct or improve employee behavior, which includes, for example, refresher training and positive reinforcement to improve the motor carrier’s overall safety performance.

The SMC is used by FMCSA during investigations. The general steps in applying the SMC to motor carrier operations are provided below:


**Refresher on CSA and the 7 Behavior Analysis & Safety Improvement Categories (BASICs)**

The FMCSA CSA program uses the Safety Measurement System (SMS) to collect and analyze data from roadside inspections, crash reports from the last 2 years, and investigation results. Data is updated each month and organized into seven BASICs. The SMS groups carriers by BASIC with other carriers with similar number of safety events, ranks carriers, and assigns a percentile from 0 to 100 (the higher the score the worse the performance) to prioritize them for interventions.

The seven BASICs include:

Table 1: This caption is: CSA BASICs Description

Within the CSA Operational Model, the Safety Measurement System (SMS) quantifies the on-road safety performance of individual entities to:
• Identify entities for interventions. The SMS is a key component in determining the inclusion of entities with significant safety problems into the Intervention Process.
• Determine the specific safety problems an entity exhibits. The SMS allows enforcement officers to identify the specific safety problems that the system highlights and to surgically address them through a tailored set of interventions.
• Monitor safety problems throughout the Intervention Process. The SMS will continuously monitor on-road performance to assess whether an entity’s safety performance has improved enough for it to exit the Intervention Process, or if further intervention is warranted.
• Support FMCSA’s proposed Safety Fitness Determination (SFD) process. The SMS results can be an important factor in determining the safety fitness of carriers. The SMS identifies the carriers demonstrating the worst safety performance so that they can be considered for an “Unfit” safety determination. Details on the proposed process will be available for public comment as part of the upcoming Notice of Proposed Rulemaking.

Interventions result when a motor carrier SMS results exceed the intervention level. Interventions take the form of a warning letter, off-site investigation, on-site focused investigation, or on-site comprehensive. After an intervention, the company will be required to develop effective solutions to the areas in which they have problems, called “Cooperative Safety Plan”.

**Aon CSA SMC Gap Analysis Review Process**

In response to SMC tool being released in late 2013, Aon developed a gap analysis for motor carrier clients to help them identify opportunities and be proactive in establish safety plans to address areas that had resulted in high SMS BASIC percentiles and crash frequency.

The purpose of the CSA Safety Management Cycle Gap Analysis Review is to evaluate fleet safety management practices and the adequacy of employee/driver safety measures at a client. Further, the review is designed to assist the client with means to assess the performance of their safety management controls and to recommend to management, practices that would help improve SMS scores and reduce frequency/severity of crashes identified during the assessment. The review is performed on-site to include records review, focus group interviews, and on-site survey of equipment. A report is prepared and action plan developed to prepare strategy that will address opportunities and enhance development of sustainable safety processes.
Our efforts are directed towards identifying program weakness, pertaining to compliance with CSA Safety Management Cycle/ Safety Management Controls. The assessment includes a review of the following safety management controls designed to control fleet safety exposures in the following areas (where applicable):

- Policies and Procedures
- Qualification and Hiring
- Training and Communication
- Unsafe Driver SMC
- Hours of Service Compliance SMC
- Driver Fitness SMC
- Controlled Substance SMC
- Vehicle Maintenance SMC
- Hazardous Material Compliance SMC
- Crash Indicator SMC
- Program Performance Review

**Case Study**

Aon utilized the CSA Safety Management Cycle Gap Analysis Review at the request of a client that had SMS scores at intervention levels in 4 of 7 BASICs and had just had a fatal crash. Client wanted to be prepared for an on-site intervention.


<table>
<thead>
<tr>
<th>Motor Carrier</th>
<th>DOT #</th>
<th>Unsafe Driving</th>
<th>HOS Compl.</th>
<th>Driver Fitness</th>
<th>Controlled Substances Alcohol</th>
<th>Vehicle Maintenance</th>
<th>HazMat Com.</th>
<th>Crash Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Carrier</td>
<td>NA</td>
<td>65%</td>
<td>65%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>65%</td>
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<tr>
<td>CSA Benchmark</td>
<td>NA</td>
<td>60%</td>
<td>60%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>60%</td>
</tr>
<tr>
<td>HazMat Carrier</td>
<td>NA</td>
<td>60%</td>
<td>60%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>60%</td>
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<tr>
<td>CSA Benchmark</td>
<td>NA</td>
<td>65%</td>
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<td>80%</td>
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<tr>
<td>XYZ Co.</td>
<td>XXXXX</td>
<td>73.6%</td>
<td>81.7%</td>
<td>90.2%</td>
<td>7.3%</td>
<td>66.4%</td>
<td>&lt; 5 insp.</td>
<td>86.1</td>
</tr>
</tbody>
</table>

Crash Indicator Score from April 25, 2014

Exhibit 4: this caption is: SMS Safety Data Results. Source: Aon report June 2014
Exhibit 5: this caption is: CSA SMS Gap Analysis Review Profile Results. Source: Aon report June 2014
## I. Policies & Procedures

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>N</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 1. | Safety Management Cycle (SMC):  
1. Begins with creating policies and procedures for your company  
2. Defining Roles and Responsibilities for certain personnel  
3. Establishing and following hiring qualifications  
4. Providing training and effective communication of policies and procedures to the required employees  
5. Monitoring and tracking employee performance  
6. Providing meaningful action when an employee does not follow "policies or procedures" | Not scored |
| 2. | Describe actions taken to address SMS deficiencies in the past 12 months: |
| 3. | Have policies / procedures been established to address CSA BASICs? | ☐ ☐ ☐ |
| 4. | Do they include objectives and targets? | ☐ ☐ ☐ |
| 5. | Has the policy been communicated to all staff? | ☐ ☐ ☐ |
| 6. | Does senior management actively support the policy? | ☐ ☐ ☐ |
| 7. | Has a fleet safety action plan been drawn up? | ☐ ☐ ☐ |
| 8. | Has it been communicated to all relevant staff? | ☐ ☐ ☐ |
| 9. | Is a named senior director responsible for fleet safety? | ☐ ☐ ☐ |
| 10. | Are staff members who are responsible for drivers held accountable for fleet safety performance? | ☐ ☐ ☐ |
| 11. | Have policies/procedures been developed to address owner/operator or leased drivers? Describe | ☐ ☐ ☐ |
| 12. | Does motor carrier have driver managers assigned to leased drivers? | ☐ ☐ ☐ |

**Total**
II. Qualification & Hiring

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Y</th>
<th>N</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Is there a written driver selection and qualification program?</td>
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<td>2.</td>
<td>Does each potential new driver complete:</td>
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<td></td>
<td>(a) An employment application form specific for commercial vehicle operation?</td>
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<td></td>
<td>(b) Initial (pre-hire) road test?</td>
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<tr>
<td>3.</td>
<td>DOT Medical Certificate (required for all drivers of commercial vehicles)?</td>
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<tr>
<td>4.</td>
<td>Are safety performance history checks completed within 30 days of hire?</td>
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<td>5.</td>
<td>Are the reference checks documented in the Driver Files?</td>
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<td>6.</td>
<td>Are motor vehicle records obtained before hiring a driver?</td>
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<td>7.</td>
<td>If a negative report is received are new drivers refused employment?</td>
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<td>8.</td>
<td>Does the potential new driver have the required licenses and/or endorsements?</td>
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<td>9.</td>
<td>Has the client established driver qualification files that meet CFR 391?</td>
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<td></td>
<td>(a) Annual audit of records completed?</td>
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<td></td>
<td>(b) Includes the required documents – permanent and removable outlined in Exhibit One?</td>
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<tr>
<td>10.</td>
<td>Is pre-hire drug &amp; alcohol screening completed for all new CDL drivers prior to beginning work (if applicable)?</td>
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<tr>
<td>11.</td>
<td>If an applicant has worked and/or lived in another state, was that state's MVR (Motor Vehicle Record) obtained when hired?</td>
<td></td>
<td></td>
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<tr>
<td>12.</td>
<td>Are there job function descriptions available for all driving jobs?</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Is pre-hire drug &amp; alcohol screening completed for all new CDL drivers prior to beginning work (if applicable)?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Exhibit 6: this caption is: Sample questions from CSA SMS Gap Analysis Review. Source: Aon report June 2014
Safety Management Plan Ideas

Documentation could include new policies/procedures, training programs, or in-vehicle monitoring systems. The following provides an example of Hours of Service action: Description of the system that the carrier will use to control hours of service and verify the accuracy of records of duty status, the types of supporting documents that will be used, documentation showing hours of service checks and false log checks, and progressive disciplinary programs and the results. Additional response ideas include:

- Outline actions taken to ensure the violations do not reoccur and long term goals of continuing efforts to stay in compliance in the future.
- Crash Indicator actions: Establish an accident countermeasure program that includes but is not limited: defensive driving training, winter driving tips, identification of causative factors, and preventive measures implemented to reduce crashes.
- Example of how to document actions that will be conducted in the near future, such as training, reorganization of operations, purchasing of computer programs, satellite tracking, etc., a detailed description of the activity or training, including the specific curriculum, with a schedule of when the subject activity will commence and when it will be completed, should be included.
- Any additional documentation that relates to motor carrier safety and the prevention of accidents and hazardous materials incidents.
- Establish a written statement that the carrier will operate in compliance with the Federal Motor Carrier Safety Regulations and the Hazardous Material Regulations. The statement must be signed by a corporate official or owner of the company.

Client did pass the on-site comprehensive review and got a satisfactory safety rating. They took the advice of Aon and developed some documented policies and procedures. SMS scores have slightly improved for Hours of Service and Driver Fitness; however the same four BASICs remain above the intervention level eight months later.

Conclusion

The session has provided an overview of the Safety Management Cycle intervention tools and how Aon used the SMC tool to develop a gap assessment. Motor carriers must share the road with over 250 million vehicles and poor on-road performance will result in increased scrutiny by FMCSA, increased costs for automobile liability judgments, and poor corporate image.

Take action to evaluate your on-road performance and utilize the tools available in the Safety Management Cycle. Develop documented policies and procedures, clearly define roles/responsibility, train on procedures/roles, monitor, and conduct periodic program performance reviews. This will help you develop a sustainable system to improve on-road safety performance.
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(http://csa.fmcsa.dot.gov/about/interventions.aspx)

http://csa.fmcsa.dot.gov/?GRS=Y