August 21, 2012

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building, Ground Floor, Room W12-140
Washington, DC 20590-0001

Comments on Electronic Stability Control Mandate for Heavy Trucks
DOCKET No. NHTSA -2012- 0065

The American Trucking Association¹ (ATA) is writing to comment on the U.S. Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA) request for comments on the notice of proposed rulemaking (NPRM) [Docket No. NHTSA 2012-0065, Federal Motor Vehicle Safety Standards (FMVSS): Electronic Stability Control Systems for Heavy Vehicles.

The ATA supports a new FMVSS No.136 to require roll stability systems (RSS) on truck tractors with a gross vehicle weight of greater than 26,000 pounds. However, ATA believes NHTSA should provide flexibility in FMVSS No. 136 to allow different types of stability control to be adopted by the trucking industry. ATA also has concerns with the Sine with Dwell (SWD) performance test proposal as outlined below. Third, ATA does not support a retrofit requirement. And lastly, we suggest using a picture of the rear of a tractor with a pair of “S” shaped skid marks on the RSS malfunction lamp.

One Size Doesn’t Fit All in the Trucking Industry

The American trucking industry is extremely diverse in its make-up and operations. First the industry is divided between private trucking (fleets owned by a company to move the company’s own products – fleets like Wal-Mart, Safeway, and Shell to name only a few) and for-hire companies whose trucks move other owners good for a fee. Second, for-hire fleets may be divided by volume of the goods,— truckload, less than truckload, small package, and dedicated. The third way the industry is divided is by the type of truck being used (box, van, refrigerated, tank(-liquid and dry bulk), auto transporter, flatbed, dump, container, refuse, and longer combination vehicles. A fourth division is by type of operation; agricultural, long haul, long haul,

¹ ATA is the national trade association of the U.S. trucking industry. 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 2,500 trucking companies and industry suppliers of equipment and services. Directly and through its affiliated organizations, ATA represents over 37,000 companies and every size, type and class of motor carrier operation.
short haul, local cartage, over-size and over-weight transporters, intermodal, interregional, intraregional, international, intra-city, intra-state and interstate.

The effectiveness rates for electronic stability control (ESC) and roll stability control (RSC) as shown in Table 4, page 147 of the NPRM show an overall effectiveness percentage of 28 to 36% for ESC and 21 to 30% for RSC (a 6.5% difference from the midpoint of the ranges). Further Table 4 shows a 40 to 56% effectiveness percentage for ESC in untripped rollover crashes and a 37 to 53% for RSC (a 3% difference).

ATA is not convinced that the estimated ESC effectiveness advantage is large enough, significant enough or actually real enough to mandate only the ESC system for an industry as diverse as trucking. This concern is further validated through independent research.

New Research Supports Need for FMVSS Flexibility

The American Transportation Research Institute recently released a study entitled, “Roll Stability Systems: Cost-Benefit Analysis of Roll Stability Control Versus Electronic Stability Control Using Empirical Crash Data.” The analysis conflicts with NHTSA studies that support ESC systems over RSC system. The ATRI study finds that “for some fleets, RSC technology may be more effective, and cost-effective, at reducing rollover, jackknife and tow/struck crashes than ESC technology.”

The ATRI data analysis was based on the operational outputs for more than 135,000 large trucks – representing a sample size exponentially larger than any used in the NHTSA studies.

Study Data Collection and Analysis

ATRI collected crash and financial data from the trucking industry for this analysis. The data were obtained confidentially using a standardized data collection form. The requested data cells included demographic information regarding industry sector, total fleet size, and fleet vehicle configurations, the number of trucks equipped with either RSC or ESC and those with neither technology. Carriers identified the type of RSS for each truck within their fleet. Requested data also included the average per-unit cost of the purchased roll stability system, average annual miles per tractor, total annual number of safety incidents by type (rollover, jackknife, and tow/stuck) and average per-tractor costs for each safety incident type. If available, carriers were asked to provide these data for three calendar years. ATRI received complete crash and financial data from a total of 14 large and mid-size motor carriers. The ATRI sample included a total of 135,712 trucks, of which 68,647 were equipped with RSC, 39,529 trucks equipped with ESC, and 27,536 trucks equipped with no RSS technology. Carriers that provided data operated primarily in the truckload (TL) sector (81.5%), followed by the less-than-truckload (LTL) sector at 10.0 percent, and specialized at 8.5 percent. These respondents skewed towards TL compared to overall industry.

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2 ROLL STABILITY SYSTEMS: COST-BENEFIT ANALYSIS OF ROLL STABILITY CONTROL VERSUS ELECTRONIC STABILITY CONTROL USING EMPIRICAL CRASH DATA, American Transportation Research Institute, August 2012
In the sample data, trucks equipped with RSC had lower average crash rates than trucks equipped with ESC.  

Table 1: Number of Crashes per 100 Million Miles Traveled

<table>
<thead>
<tr>
<th></th>
<th>Rollover</th>
<th>Jackknife</th>
<th>Tow/Stuck</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSC</td>
<td>4.22</td>
<td>3.49</td>
<td>23.67</td>
</tr>
<tr>
<td>ESC</td>
<td>5.60</td>
<td>3.89</td>
<td>30.77</td>
</tr>
<tr>
<td>No RSS</td>
<td>10.62</td>
<td>14.39</td>
<td>30.35</td>
</tr>
</tbody>
</table>

The research also found that RSC equipped trucks incurred lower average crash costs than ESC equipped trucks.

Table 3: Crash Cost per 1,000 Miles Traveled

<table>
<thead>
<tr>
<th></th>
<th>Rollover</th>
<th>Jackknife</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSC</td>
<td>$3.77</td>
<td>$0.54</td>
</tr>
<tr>
<td>ESC</td>
<td>$4.81</td>
<td>$0.45</td>
</tr>
<tr>
<td>No RSS</td>
<td>$9.58</td>
<td>$2.67</td>
</tr>
</tbody>
</table>

“If the calculations derived from this data sample are consistent with the industry as a whole, this research would indicate that industry-wide installation of RSC would result in fewer rollover, jackknife and tow/stuck crashes compared to an industry-wide installation of ESC. Furthermore, an industry-wide installation of RSC would subject the trucking industry to lower rollover and jackknife crash costs. Finally, a full deployment of RSC would cost far less than a full deployment of ESC. Overall, RSC would provide greater benefit to society and industry through fewer crashes and lower crash costs compared to ESC, while doing so at a considerable implementation discount since ESC was found to be 152.8 percent more expensive based on the sample data analyzed in this study.”

An industry as diverse as trucking needs regulations and standards that provide flexibility and allow vehicle operators, fleet owners and vehicle manufactures the ability to determine the best possible equipment needed to perform the operations that must be accomplished.

President Obama’s Direction to Agencies

President Obama stated in Executive Order 13563 dated January 18, 2011, that regulations should follow certain key principles including promoting flexibility and freedom of choice and directed agencies to tailor regulations to impose the least burden on society while still maintaining their intended goal... Section 4 of the Executive Order 13563 states that, “each agency shall indentify and consider regulatory approaches that reduce burdens and maintain...”

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4 ROLL STABILITY SYSTEMS: COST-BENEFIT ANALYSIS OF ROLL STABILITY CONTROL VERSUS ELECTRONIC STABILITY CONTROL USING EMPIRICAL CRASH DATA, American Transportation Research Institute, August 2012
5 Ibid
6 Ibid
7 Ibid
flexibility and freedom of choice for the public." Section 4 acknowledges the importance of considering flexible approaches and alternatives to mandates, prohibitions, and command-and-control regulation. It emphasizes the potential value of approaches that improve the operation of free markets or that maintain and promote flexibility and freedom of choice.

Requiring in an FMVSS a RSS for heavy vehicles is acceptable given the potential improvement in vehicle safety expected from such a mandate. This is corroborated in the ATRI research whereby RSS-installed trucks had a 65.6% lower crash rate than trucks with no SCS system. Requiring that RSS be of only one type is analogous to Henry Ford saying the customer may buy my model T in any color he'd like – as long as it is black.

The ATRI cost-benefit analysis is the only analysis of actual crash data obtained from fleets with trucks equipped and not equipped with RSS. The analysis clearly conflicts with NHTSA’s more limited analyses (which, in part, were done by ATRI, and they relied upon their work at that point). Given the fact that stability control systems work, and the conflicting findings between this new ATRI study and the analyses relied upon in the rulemaking, and the President’s direction to provide flexibility and alternatives in rules, ATA believes that NHTSA should move forward with a final rule mandating a minimum standard in FMVSS No.136 for roll stability control systems for new trucks and allow the hundreds of thousands of motor carrier that make up the trucking industry to determine which RSS best supports their operation environment and the purchase RSS based on that need.

**Sine with Dwell (SWD) Test Performance Requirement**

In section II B. Contributing Factors in Rollover and Loss-of-Control Crashes, five “real-world” situations are described in which RSS may prevent or lessen the severity of this type of crash, three of which are directly related to a drivers steering maneuver. The SWD performance test does not appear to duplicate any of the three situations.

Additionally, we are concerned that the logistics costs associated with performing this test, including traveling to one of the few test tracks in the country large enough to perform the tests, rigging the trailer with outriggers (destructive to the trailer) and other related costs make this a very expensive requirement. ATA recommends that NHTSA work with the RSS manufacturers and the tractor manufacturers and to develop a performance test that is acceptable to all sides.

**Retrofitting of ESC on other than new tractors**

ATA supports NHTSA’s long standing position of establishing prospective motor vehicle safety standards. We are unaware of a regulatory action on NHTSA’s part that called for any type of retrofit requirement. With a four to five year new tractor turn-over cycle for the vast majority of class 7 & 8 tractors, in our opinion a retrofit requirement is unnecessary.

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8 Memorandum for the Heads of Independent Regulatory Agencies, dated July 22, 2011, Executive Office of the President, Office of Management and Budget
9 ibid
Symbol used to identify RSS malfunction

ATA believes that the symbol used on the tractor dashboard lamp to indentify the RSS malfunction lamp should be that of the rear of a truck with a pair of “S” shaped skid marks rather than a car. Truck drivers will better understand the meaning if it is representative of the vehicle being driven.

CONCLUSION

The ATA supports a new FMVSS No.136 to require RSS on truck tractors with a gross vehicle weight of greater than 26,000 pounds. NHTSA has a unique opportunity to embrace a key principle of Executive Order 3563 and allow more than one type of stability control system on heavy tractors. ATA believes NHTSA should provide flexibility in FMVSS No. 136 to allow different types of stability control to be adopted by the trucking industry.

ATA also has concerns with the SWD performance test proposal as the performance test standard for RSS. Note that if FMVSS No. 136 set a minimum roll standard that the SWD performance test would be unnecessary.

With a four to five year new tractor turn-over cycle for the vast majority of class 7 & 8 tractors, in our opinion a retrofit requirement is unnecessary.

ATA believes that truck driver will better understand the meaning of the RSS malfunction lamp if it is representative of what the driver is driving.

Thank you for helping to keep our highways safe.

Sincerely,

Ted Scott
Director, Engineering