



April 6, 2007

NHTSA Requires Electronic Stability Control Systems on New Passenger Cars, Trucks & Busses

The National Highway Traffic Safety Administration (NHTSA) published on June 6, 2007, a new safety standard that requires electronic stability control systems as part of its plan for reducing the serious risk of rollover crashes. The final rule establishes a new Federal Motor Vehicle Safety Standard (FMVSS) No. 126 to require electronic stability control (ESC) systems on passenger cars, multipurpose passenger vehicles, trucks, and buses with a gross vehicle weight rating of 4,536 Kg (10,000 pounds) or less. ESC systems use automatic computer-controlled braking of individual wheels to assist the driver in maintaining control in critical driving situations in which the vehicle is beginning to lose directional stability at the rear wheels (spin out) or directional control at the front wheels (plow out). The rule is effective on June 5, 2007 but NHTSA established a phase-in period that begins on September 1, 2008 and is completed when all new light vehicles must be equipped with an ESC system that meets the requirements of the standard by September 1, 2011 (with certain exceptions). NHTSA set May 21, 2007 as the date any petition for reconsideration of this rule must be received.

NHTSA specifically responded to one commentator who urged NHTSA to require ESC system on/off controls for vehicles capable of towing a trailer because the current ESC systems do not communicate with the trailer when intervening to maintain stability. NHTSA found it had no evidence to support that supposition, but stated that “however, tow vehicle/trailer safety is an area of ongoing interest” and it “always welcomes information on ways new technology can improve it. For example, some ESC systems are now being offered with trailer stabilization assist (TSA) control algorithms.” The paragraphs specific to trailer safety are excerpted below. To view the full text of the final regulation go to: <http://a257.g.akamaitech.net/7/257/2422/01jan20071800/edocket.access.gpo.gov/2007/pdf/07-1649.pdf> . Please contact Cindy Squires, NMMA’s Regulatory Counsel (202-737-9766; csquires@nmma.org) with any comments or concerns.

“(c) ESC Operation With Towed Trailers

“According to Mr. Feldhus, ESC systems must be required to have on/off controls for vehicles capable of towing a trailer, because current ESC systems do not communicate with the trailer when intervening to maintain stability. He stated that because the ESC-equipped towing vehicle's brake lights do not activate, the aftermarket trailer's brake controllers cannot participate. He further stated that towing vehicles dive and trailer hitches rise during heavy braking, so unless care is taken, a two-to-four ton trailer could lift and overpower the towing vehicle. Thus, Mr. Feldhus stated that the agency should not mandate ESC systems until such time as it evaluates such effects using special trailer test rigs that have motor-controlled swinging masses and numerous hitch combinations. He also suggested additional tests simulating air disturbance from oncoming trucks on two-lane roads. Ultimately, Mr. Feldhus recommended adopting specific pass/fail towing criteria that vehicle manufacturers must meet, as part of any safety standard for ESC.

“We have no evidence supporting the supposition that ESC intervention will adversely affect the safety of a vehicle hauling a trailer, nor has any vehicle or ESC manufacturer told us that lack of communication between a tow vehicle and trailer will negatively affect ESC functionality. ESC systems operate in extreme driving situations where a loss of control is anticipated (i.e., excessive oversteer or understeer situations). On some vehicles with high centers of gravity, ESC may also intervene during impending on-road, untripped rollover situations. In each of these loss-of-control situations, we do not believe ESC stabilization of the tow vehicle would result in a subsequent loss of trailer stability. Accordingly, we see no reason to revise the regulatory text regarding this issue.

“However, tow vehicle/trailer safety is an area of ongoing interest to NHTSA, and the agency always welcomes information on ways new technology can improve it. For example, some ESC systems are now being offered with trailer stabilization assist (TSA) control algorithms. These algorithms are specifically designed to help mitigate yaw oscillations that can occur when the vehicle/trailer system is being operated in certain driving situations. These systems operate by using the tow vehicle ESC system to automatically brake the tow vehicle in a way that suppresses the trailer yaw oscillations before they become so large that a loss of control is evident. Evaluating TSA effectiveness is an area of research presently under consideration at NHTSA.”

See Motor Vehicle Safety Standards: Electronic Stability Control Systems, 72 Fed. Reg. 17,236, 17296-97 (April 6, 2007).