

August 6, 2016

The Honorable Mark R. Rosekind, Ph.D. Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Federal Motor Vehicle Safety Standards 49 CFR Part 571, Rear Impact Guards, Rear Impact Protection; Notice of Proposed Rulemaking; Docket No. NHTSA-2015-0118

Dear Administrator Rosekind:

On May 5, 2016, almost 100 people participated in an Underride Roundtable hosted by the Insurance Institute for Highway Safety at their Vehicle Research Center in Ruckersville, Virginia, with co-sponsors Truck Safety Coalition and AnnaLeah & Mary for Truck Safety. Participants included researchers, safety advocacy groups, the trucking industry, truck trailer manufactures and government officials, including members of NHTSA staff. Discussions during the meeting ranged from descriptions of the nature and magnitude of the underride problem to potential solutions including better conspicuity, new rear underride guard designs and the potential for side guards to prevent run-overs of pedestrians and cyclists in urban environments. The information shared during our meeting clearly illustrated the need to do more to address underride crashes as well as the possibility of doing so.

During the meeting IIHS conducted a 35 mph 30 percent overlap frontal crash test of a midsize car into the new and improved rear underride guard available on trailers manufactured by Stoughton. The guard prevented underride and occupant compartment intrusion thereby becoming the 4th major trailer manufacturer to offer guards capable of preventing underride at 35 mph in all 3 configurations tested by IIHS – full overlap, 50 percent overlap and 30 percent overlap (press release attached). These 4 manufacturers – Manac, Stoughton, Vanguard and Wabash – represent nearly 40 percent of the truck trailer market in the United States. IIHS crash tests indicate that a higher level of underride protection is possible and the March announcement (press release attached) that J.B. Hunt Transport Services, Inc. order 4,000 trailers with the new Wabash RIG-16 Rear Underride Guard System indicate that better guards are not an impediment to the service trailers provide.

Subsequent to the Underride Roundtable, all participants were invited to attend a follow-up meeting at the IIHS office in Arlington, Virginia. On June 24, 2016, thirteen people representing different points of view met to formulate updated recommendations for NHTSA’s consideration as it deliberates the proposed upgrade of FMVSS 223. Adopting the Canadian Motor Vehicle Safety Standard 223 will do little to advance underride protection because trailer manufacturers already are fitting guards that meet this standard and IIHS testing illustrates that greater levels of strength are needed to address the full range of potential impact zones between the vehicle and rear of the trailer. We believe that incorporating the following recommendations in its final rule will help prevent the senseless loss of lives associated with crashes into the rear of heavy trucks.

* * * * *

1. The revised FMVSS 223 should require guards that are strong enough to allow the inherent crashworthiness of modern passenger vehicles to be realized. Specifically, guards should prevent underride and occupant compartment intrusion when struck by a typical passenger vehicle at 35 mph with overlaps ranging from 30 percent of the passenger vehicle's width to full overlap between passenger vehicle and truck trailer. Tests of trailers from Manac, Stoughton, Vanguard, and Wabash illustrate the practicability of providing the level of underride protection described above.
2. It should be possible to prescribe a regulatory test procedure based on quasi-static loading and minimum force levels that will lead to guards capable of providing the same or better level of underride protection as demonstrated by guards on Manac, Stoughton, Vanguard and Wabash trailers.
3. The underride guard and trailer structure are a system. As such, compliance testing of rear impact guard strength should be conducted with the guard attached to the trailers and/or a portion of it that includes all structures to which the guard attaches.

Respectfully submitted,

David Zuby, Chief Research Officer
Insurance Institute for Highway Safety

Gary Fenton, VP of Engineering
Stoughton Trailers

Aaron Kiefer, Consulting Engineer
Accident Research Specialists

Paul Hutson,
ECU engineering student and intern with Aaron Kiefer

Jared Bryson, *SR Mechanical Systems Group Leader*
Virginia Tech, Center for Technology Development

Perry Ponder, President
Seven Hills Engineering

Raphael Grzebieta, Professor of Road Safety & Australian Naturalistic Driver Study
Lead Chief Investigator (Maintains that dynamic crash testing is preferable to quasi-static testing)

Andy Young, Attorney
Nurenberg, Paris, Heller & McCarthy Law Firm

Jerry Karth
AnnaLeah & Mary for Truck Safety

Isaac Karth
AnnaLeah & Mary for Truck Safety

Marianne Karth
AnnaLeah & Mary for Truck Safety