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May 19, 2016

Administrator Mark R. Rosekind
National Highway Traffic Safety Administration
U.S. Department of Transportation
West Building, Ground floor, Rm. W12-140, Docket Management Facility, M-30
1200 New Jersey Ave., S.E.
Washington, DC 20590

Re: Docket No. NHTSA-2015-0118

Dear Dr. Rosekind:

I am writing to update my comments on the underride guard rulemaking that is in process. In my previous comments on February 14, 2016, I requested that the underride rulemaking not advance until after the Underride Roundtable took place on May 5, 2016, and that the perspective provided by this historic event could be taken into consideration.

The entire proceedings of the Roundtable are accessible via the archived webcast (Webcast Link for Truck Underride Roundtable at IIHS on May 5, 2016). After participating in the Underride Roundtable, I would like to offer these additional comments:

1. When the Karth family petitioned Secretary Foxx on May 5, 2014, we requested, among other things, an upgrade in rear underride guards. At the time, we requested that the U.S. guards meet or exceed the Canadian standard. Since that time, having done extensive online research, we have come in contact with researchers who have shown that much more is possible given existing or proposed underride research. Links to this research can be found on our website, annaleahmary.com: **Underride Roundtable To Consider Underride Research From Around the Globe.**
2. One of the questions raised at the Underride Roundtable was whether underride protection could be produced to prevent underride at higher speeds. NHTSA, in the Preliminary Regulatory Evaluation of the NPRM issued in December 2015 for Rear Underride on Trailers, requested information about underride guard crash tests at higher speeds (than the 35 mph currently being proposed). This is what you said, *We recognize, however, that benefits may accrue from underride crashes at speeds higher than 56 km/h (35 mph), if, e.g., a vehicle's guard exceeded the minimum performance requirements of the FMVSS. NHTSA requests information that would assist the agency in quantifying the possible benefits of CMVSS No. 223 rear impact guards in crashes with speeds higher than 56 km/h (35 mph).* See: [NPRM Rear Impact Guards, Rear Impact Protection December 2015 document; A Summary of Some of the Highlights](#)

In fact, underride research has been conducted for decades which has demonstrated that it is possible to prevent underride crashes at higher speeds. It is research which has been available and known to regulators and the industry. For example, the Monash University Accident Research Centre (MUARC) in Australia tested energy-absorbing guards to 75 km/h or 47 mph in the early 1990s.
http://www.monash.edu/_data/assets/pdf_file/0006/216924/muarc026.pdf

3. See the image below of a MUARC energy-absorbing underride guard.



4. The U.S. final underride rule should, at minimum, copy the new Australian/New Zealand proposed rule published in April 2016 (<http://annaleahmary.com/wordpress/wp-content/uploads/2016/04/STANDARDS-AUSTRALIA-Rear-Underride-Proposed-Rule.pdf>) as the next underride guard rule rather than the present Canadian rule which is eleven years old. The Australian rule mentions test speeds under the heading *Test Requirements* on p. 60, Clause G7.3: *Current vehicle crashworthiness technology indicates that occupants will not suffer serious injury in an equivalent frontal impact speed of up to around 64 km/h into a deformable barrier if the car is a modern five star Australian New Car Assessment (ANCAP) vehicle. . . The development of effective energy absorbing TUBs [Truck Underrun Barrier] would both reduce the serious injury to vehicle occupants and increase the effect frontal impact speed DeltaV above the 70 km/h test speed compared with a rigid TUB.*
5. It is technically feasible to develop an improved underride guard in less than a year, as the Virginia Tech Students demonstrated: [VA Tech Student Engineers Shine in Underride Roundtable Presentation](#)
6. The consumers of the trailers have requested and received, from [four](#) of the trailer manufacturers (Wabash, Manac, Vanguard, Stoughton), improved underride guards.
7. Four of the major trailer manufacturers were more than willing to step up and provide a better underride guard (successfully tested at 35 mph for a 30% offset crash). [Trailer Manufacturers Voluntarily Step Up Underride Standards](#)
8. It is cost-effective to design and build a better underride guard.
9. The Cost/Benefit Analysis ([CBA](#)) used in this rulemaking is faulty as clearly demonstrated by some of the manufacturers' willingness to step up and provide a better underride guard—even without regulation. (Truck Safety Marketplace)
10. It is possible to bring all of the parties involved into the process, to have meaningful conversation, and to make progress.

Regarding the Cost/Benefit Analysis, I question the calculations as being overly stated for the Cost side as demonstrated by the estimated fuel costs in Table 26, *Undiscounted Value of Lifetime Fuel Economy Impact Per Vehicle in 2013 Dollars*, pp. 57-58. These figures indicate an ever-increasing cost of fuel, whereas the cost of fuel has actually been decreasing (see attachment).

Regarding the Cost Effectiveness Analysis, I question the accuracy of the conclusions. I do not find any of the variables concerning what a parent would pay to protect their children included in the calculation. Also, this equation seems to be missing the entire impact upon a family if a “bread-winner” is injured or lost in a crash, which could place the family into poverty. Also, does it include the medical expenses to care for a severely injured individual—paraplegic or quadraplegic?

In the past, it has been concluded that a stronger override rule was not cost-effective. Thus, per the [OMB](#), I am requesting that the Institute of Medicine (IOM) assemble a panel of specialists in Cost-Effectiveness Analysis & Bioethics to evaluate the advantages and disadvantages of different measures of effectiveness in order to determine whether the override rule, which is intended to prevent people, in passenger vehicles, from riding under a truck and consequently being severely injured or killed, has been appropriately analyzed—especially because technology exists that can, in fact, prevent this horrific tragedy. The kind of tragedy which ended the lives of AnnaLeah and Mary.

Sincerely,

Jerry Karth