



Parents Against Tired Truckers and Citizens for Reliable and Safe Highways

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## **Underride: Rear/Front/Side Guards**

The federal government should require all trucks and trailers to be equipped with energy-absorbing rear impact guards mounted lower to the ground (16 inches), with vertical supports spaced farther apart (mounted 18 inches from the side edges) to effectively protect car occupants from death and injury in rear impact crashes. This safety technology is proven and well known. Actions must be taken immediately to improve the current rear guard regulation and to include side panel and front underride (also referred to as front override) guard requirements.

The National Highway Traffic Safety Administration (NHTSA) reported that large truck rear impacts comprised 19 percent of fatal two - vehicle collisions between large trucks and passenger vehicles during 2011.<sup>i</sup> Insurance Institute For Highway Safety (IIHS) crash tests demonstrated that the rear underride guards mandated for trailers by NHTSA in 1998 performed poorly, and support the need for an improved rear underride guard rule.<sup>ii</sup> In their 2011 petition to NHTSA to upgrade underride guard standards, IIHS noted, “The occupant compartment intrusion resulting from guard failures exposes occupants to risks of severe head, neck, and other injuries in crashes that otherwise would be easily survivable.”<sup>iii</sup> For the past four years, NHTSA has said that they will release a new requirement for improved rear guard standards but has yet to do so. Rulemaking is long overdue.

NHTSA has reported that large truck side impacts comprised 15 percent of fatal two - vehicle collisions between large trucks and passenger vehicles during 2011.<sup>iv</sup> One reason why collisions with the sides of tractor - trailers are hazardous is that there is a large area of the trailer where underride may occur during these collisions. Side underride collisions are an important safety problem because, as with rear underride collisions, they defeat crumple zones and prevent air bag deployment, both vital safety advances in improving protection of passenger vehicle occupants during crashes. In addition, bicyclists and pedestrians are particularly vulnerable to side underride interactions because of their size and the lack of protection. These interactions can occur when a truck is turning, and the cab of the truck obstructs the driver’s view.

The National Transportation Safety Board (NTSB) has issued multiple recommendations for improved rear underride guards, for side underride protection systems, and front underride guards (also referred to as front override guards). In addition, NTSB identified the need for improved data collection, including vehicle identification numbers to better evaluate trailer design and the impact on safety.<sup>v</sup>

## **The Truck Safety Coalition urges DOT to take action immediately**

- Release the rule for improved rear underride guards – lower, wider, more energy absorbing.
- Accelerate the process for research and rulemaking for side underride protection systems, and for front underride guards.
- Require improved data collection to better evaluate trailer design and its impact on safety.

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<sup>i</sup> National Highway Traffic Safety Administration. (2013, April). “Traffic Safety Facts: Large Trucks, 2011.” Washington, DC: US Department of Transportation. Retrieved from <http://www-nrd.nhtsa.dot.gov/Pubs/811752.pdf>.

<sup>ii</sup> Insurance Institute for Highway Safety (IIHS). (2011). “Potential Benefits of Underride Guards in Large Truck Side Crashes.” By Matthew L. Brumbelow. Received from <http://www-nrd.nhtsa.dot.gov/pdf/esv/esv22/22ESV-000074.pdf>.

<sup>iii</sup> Zuby, David S., and Matthew L. Brumbelow. “Petition for Rulemaking; 49 CFR Part 571 Federal Motor Vehicle Safety Standards; Rear Impact Guards; Rear Impact Protection.” *IIHS Regulatory Documents*. Insurance Institute For Highway Safety, 28 Feb. 2011.

<sup>iv</sup> National Transportation Safety Board. (2014, April 3). “Safety Recommendations.” By Deborah A.P. Hersman. Retrieved from <http://www.nts.gov/doclib/reclatters/2014/H-14-001-007.pdf>.

<sup>v</sup> National Transportation Safety Board. (2014, April 3). “Safety Recommendations.” By Deborah A.P. Hersman. Retrieved from <http://www.nts.gov/doclib/reclatters/2014/H-14-001-007.pdf>.