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Department of Transportation
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1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001
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Side Underride Guards; DOT/NHTSA # NHTSA-2023-0012

These comments are filed jointly by the Truck Safety Coalition (TSC), Citizens for Reliable and Safe Highways (CRASH), Parents Against Tired Truckers (P.A.T.T.), and our volunteers, who are the family and friends of truck crash victims and survivors seeking truck safety advances, in response to the National Highway Traffic Safety Administration's (NHTSA) "Advance Notice of Proposed Rulemaking (ANPRM); request for comments."

The National Highway Traffic Safety Administration (NHTSA) reports that in 2021 over 5,700 lost their lives in truck crashes¹, an increase of 71% since 2009. Another 155,000 people were injured, causing estimated economic losses of \$66 billion, adjusted for inflation.^{2 3} Large trucks pose a severe risk to passenger vehicles on our roads. They typically outweigh passenger vehicles by 20-30 times and have large ground clearance, allowing passenger vehicles to pass underneath them without resistance, resulting in devastating consequences.⁴ It should come as no surprise that 97% of the fatalities in fatal two-vehicle crashes involving a large truck and passenger vehicle occur to passenger vehicle occupants.⁵

Historical Context

The Department of Transportation has been aware of the lethal risk trailers pose to passenger vehicles for over 50 years and has largely been indifferent to the life safety needs of the traveling public. In 1969 the Agency wrote, "*It is anticipated that the proposed standard will be amended, after technical studies have been completed, to extend the requirement for underride protection to the*

¹ Overview of Motor Vehicle Traffic Crashes in 2021, NHTSA, Apr. 2023, DOT HS 813 435.

² 2022 Pocket Guide to Large Truck and Bus Statistics, FMCSA, Dec. 2022, RRA-22-007.

³ CPI Inflation Calculator, BLS, Jan. 2020 to Jan. 2023, available at <https://www.bls.gov/data/inflation_calculator.htm>

⁴ <https://www.iihs.org/topics/fatality-statistics/detail/large-trucks>

⁵ Id.

sides of large vehicles.”⁶ TSC is unaware of DOT completing a single side underride crash impact technical study in the intervening 54 years, commissioning such a study only after congressionally mandated by the Infrastructure Investment and Jobs Act (IIJA), 2021.⁷ In addition, DOT made no effort to collect the requisite data to understand the scope and scale of underride fatalities and injuries until quite recently, despite being admonished by the Insurance Institute for Highway Safety (IIHS) to do just that in 1992. In 2013, Academics also studied the prevalence of underride crashes and concluded severe undercounting was occurring and the Fatality Analysis Reporting System (FARS) was inadequate to accurately assess this problem of data collection inconsistency and limitations.⁸ The National Transportation Safety Board (NTSB) also encouraged NHTSA to improve its trailer underride data collection in 2014, noting that the agency lacked the data it needed when it undertook tractor-trailer retrofit conspicuity requirements in 2001. Despite being clearly aware of the challenges in conducting data-driven rulemaking without meaningful crash data and a growing chorus of outside calls to improve its data collection, NHTSA still took no substantive action to improve its underride data collection.⁹ Again, in 2019, the Government Accountability Office (GAO) issued a scathing report regarding NHTSA’s efforts to understand and analyze underride crashes and also made a formal recommendation to NHTSA to add an underride data element to the Model Minimum Uniform Crash Criteria (MMUCC).¹⁰

Not only has NHTSA inexplicably taken no action to improve its underride data collection or side underride guard impact testing until the past year, recent reporting by Frontline PBS and ProPublica reveal highly inappropriate influence ceded to the trucking industry, specifically the American Trucking Association (ATA), to minimize the need and potential lifesaving efficacy of side underride guards. The reporting details that, following a comprehensive literature review, DOT concluded that side underride guards were effective and was prepared to recommend regulations requiring their use. The agency then briefed the ATA on this conclusion, grew concerned over ATA’s fierce displeasure, and ultimately supplied them with a copy of the draft report to provide edits and comments. Following ATA’s review and comment, the recommendation that side guard regulation be crafted disappeared.¹¹

On behalf of all truck crash victims and survivors, TSC is disgusted by DOT’s inaction and rebukes in the strongest possible terms, DOT’s over half-century of inaction and inappropriate deference to the bottom-line interests of industry lobbyists. Untold numbers of lives have been lost with no substantive action taken by DOT to meaningfully address this known safety issue. NHTSA’s stated mission is to reduce death and injury from motor vehicle crashes, yet nothing about their historical posture toward saving lives from side underride crashes would suggest this is the case.

Advance Notice of Proposed Rulemaking

TSC applauds NHTSA for moving forward with Side Underride Guard Advance Notice of Proposed Rulemaking (Side Underride Guard ANPRM) for side underride guards, as well as establishing the Advisory Committee on Underride Protection. These actions represent a long overdue agency

⁶ 34 FR 5384 (Mar. 19, 1969).

⁷ Pub. L. 117-58 (2021).

⁸ Blower and Woodroffe. 2013. Heavy-vehicle crash data collection and analysis to characterize rear and side underride and front override in fatal truck crashes. Report no. DOT HS-811-725. Washington, DC: National Highway Traffic Safety Administration.

⁹ NTSB Safety Recommendations H-14-005, H-14-006 and H-14-007.

¹⁰ Government Accounting Office. 2019. Truck underride guards: Improved data collection, inspections, and research needed. GAO-19-264.

¹¹ <https://www.propublica.org/article/dot-rejected-truck-side-guards-trucking-lobbyists-safety>

recognition that side underride deaths are preventable and that proven solutions exist to prevent side underride deaths and injuries. However, TSC's review of the Side Underride Guard ANPRM reveals several deficiencies that minimize their cost effectiveness that need to be addressed:

- Underride-related crashes are severely undercounted in federal data, as previously referenced in the 2019 GAO Report.¹² Despite acknowledging awareness of underride fatality and injury undercount in the Side Underride Guard ANPRM, NHTSA's analysis does not exhaust all options to compensate for this known fact and must be corrected.
 - Vulnerable Road User (VRUs) fatalities caused by side underride impacts, such as those incurred by cyclists and pedestrians, are not accounted for in the Side Underride Guard ANPRM's analysis. This is unacceptable. To assume zero lives are saved when relevant existing research and data suggest the contrary defies logic.¹³ Some weight must be given to the increased probability of a cyclist or pedestrian surviving an underride crash when side underride guards are present.
 - NHTSA's analysis is not informed by in-house impact testing conducted at various speeds, impact angles, and more than one side guard model. This research is necessary to generate the objective, necessary data to conduct their analysis. These limiting factors artificially limit NHTSA's ability to more accurately estimate side underride guard efficacy and lives saved.
 - NHTSA's analysis curiously assumes no life-safety benefit at speeds for crashes higher than 40 mph (as opposed to gradually diminishing effectiveness at higher speeds, which conforms to common sense). Additionally, NHTSA makes no effort to incorporate side impact crashes where the Delta-V between the large truck and passenger vehicle is 40 mph or less, which is yet another limiting factor that severely handicaps the reliability of their lives saved estimate and ensuing cost-benefit analysis.
- In addition to underestimating the economic value of lives saved, the Side Underride Guard ANPRM cost benefit analysis suffers from additional deficiencies that depress their cost effectiveness.
 - Existing research demonstrates aerodynamic fuel efficiency benefits associated with sideguard deployment that help offset the increased fuel consumption associated with the additional weight of the guard.¹⁴ This factor is not accounted for in NHTSA's cost-benefit analysis.
 - NHTSA's analysis includes projections of the future lifetime trailer costs. TSC takes no exception to this practice, however, TSC takes extreme offense by NHTSA's working assumption that costs are only incurred moving forward. Underlying this assumption is that the status quo (no trailer side underride guard requirement) represents the acceptable starting point from which to assess the impact of regulatory changes. This implies that the injuries incurred and lives lost for 54 years of regulatory inaction following DOT's 1969 self-proclamation that it believes side underride guard

¹² Government Accounting Office. 2019. Truck underride guards: Improved data collection, inspections, and research needed. GAO-19-264.

¹³ US DOT Volpe Center. 2022. Lateral Protective Devices (Side Guards) and Vulnerable Road User Safety. Available at: <https://www.volpe.dot.gov/our-work/policy-planning-and-environment/lateral-protective-devices-side-guards-and-vulnerable-road>

¹⁴ Id.

requirements will be necessary as inconsequential. DOT knowingly failed to conduct the research or propose rulemaking in the interim, including a generation's worth of time over the 24 years immediately following 1969 when 12866 reviews were not necessary. Had sincere efforts to mitigate side underride crash deaths occurred there would be no "additional" lifetime costs because they were already required and benefited from a continuously improving iterative requirement process as rear impact guards have. Rear impact guards were initially mandated without the requirement of a 12866 analysis which made it far easier to require iterative improvements to their impact absorption ability as *they were already required on large trucks to mitigate death and injury from front-to-rear passenger vehicle to large truck crashes*. **There is an incredible, yet uncalculated, cost to DOT's two generations worth of side underride guard inaction that has harmed the public interest and must be accounted for.**

- To the aforementioned point, directives detailed in President Biden's Modernizing Regulatory Review Executive Order (April 6, 2023) appear to have been ignored.¹⁵ The EO directs the Office of Information and Regulatory Affairs to **"fully account for regulatory benefits that are difficult or impossible to quantify, and does not have harmful anti-regulatory or deregulatory effects"** (emphasis added).¹⁶ In addition, "Regulatory analysis should facilitate agency efforts to develop regulations that **serve the public interest**" (emphasis added).¹⁶
- Lastly, the Side Underride Guard ANPRM fails to propose conspicuity requirements for retro-reflective tape on the side underride guard. This is a significant oversight. Previous DOT research suggests retroreflective tape can reduce the incidence of side trailer crashes by 41-44%.¹⁷

The public rightly views NHTSA's commitment to reducing side underride crashes with skepticism, even more so following PBS Frontline and ProPublica's explosive investigative reporting. In analyzing the Side Underride Guard ANPRM, it appears several subjective decisions were made in the analysis that artificially limits the estimated number of lives saved and fails to quantify the deadly impact of multi-generational side underride guard inaction. In addition, NHTSA did not conduct any robust side underride guard impact testing with real-world prototypes from multiple manufacturers to properly inform its analysis. These self-inflicted flaws prohibit NHTSA's ability to propose a Side Underride Guard Rule that places the best interest of the public first and adequately considers the impact of regulatory inaction. After 54 years, the American public deserves better and TSC respectfully requests NHTSA expediently address the shortcomings identified in this comment and issue a revised rule and accompanying analysis.

Sincerely,

¹⁵ <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/06/executive-order-on-modernizing-regulatory-review/>

¹⁶ Id.

¹⁷ Morgan, Christina. 2001. "The Effectiveness of Retroreflective Tape on Heavy Trailers." DOT HS 809 222. Washington, DC: National Highway Traffic Safety Administration.



Zach Cahalan
Executive Director, Truck Safety Coalition (TSC)

Tami Friedrich Trakh
President
Truck Safety Coalition

Tami's sister, Kris, brother-in-law, Alan, and two of their children, Brandie and Anthony, were killed in 1989 when a tanker truck overturned in front of them and exploded.

Russell Swift
Vice President, Truck Safety Coalition
Co-Chair, Parents Against Tired Truckers

Russ' son, Jasen, was killed instantly, as was a fellow Marine, while they drove in the dark to work in 1993, by a seventeen-year-old truck driver on an invalid learner's permit whose truck was stuck across two lanes after trying a U-turn, causing the car to drive into and under the side of the trailer, causing a fatal underride crash.

Daphne & Steve Izer
Co-Chair
Parents Against Tired Truckers

Daphne and Steve's son, Jeff, and three of his friends were killed in 1993 when a semi-truck driver fell asleep at the wheel and ran over their parked car.

Dawn King
Board Member
Citizens for Reliable and Safe Highways & Truck Safety Coalition

Dawn's father, Bill Badger, was killed in 2004 while slowed in traffic when he was hit from behind by a truck driver who had fallen asleep at the wheel.

Linda Wilburn, Board Member, Parents Against Tired Truckers (P.A.T.T.)
Linda and Gary Wilburn's son, Orbie, was killed in 2002 when a tired truck driver slammed into his car.

Jennifer M. Tierney, Board Member, Citizens for Reliable and Safe Highways (CRASH) & Truck Safety Coalition.
Jennifer's father, James Mooney, was killed on a dark, rural road in 1983 when he crashed into a truck with no visible lights blocking the roadway

Pam Biddle, Board Member, Citizens for Reliable and Safe Highways (CRASH)
Pam's son, Aaron Lee, was in their car with his father Brian, and Brian's partner, Stephanie Swaim stopped in slowed traffic when a speeding semi failed to stop and rear-ended their vehicle pushing it under the semi in front of them. The vehicles burst into flames, killing Aaron, Brian and Stephanie.

Anna Guardipee, Board Member, Citizens for Reliable and Safe Highways (CRASH)

Anna and her best friend Jenny were returning to Virginia from North Carolina for Anna's granddaughter's baptism. They were stopped in traffic on I-77 when a distracted semi-driver failed to notice the stopped traffic and slammed into the back of their car, pushing them into the semi they were stopped behind. Jenny and Anna were airlifted to the hospital. Jenny fought hard but never regained consciousness. Anna survived and is paralyzed from the waist down.

Jena Frost, Board Member, Parents Against Tired Truckers (P.A.T.T.)
Jena's son, Wyatt, was 5 years old when he was killed by a box truck unequipped with AEB.

Lee Jackson, Board Member, Citizens for Reliable and Safe Highways (CRASH)

J.J. Burns, Board Member, Parents Against Tired Truckers & Truck Safety Coalition (P.A.T.T.)

Joe Hanslip, Board Member, Parents Against Tired Truckers & Truck Safety Coalition (P.A.T.T.)

Kevin Donovan, Board Member, Parents Against Tired Truckers & Truck Safety Coalition

Jeff Burns, Board Member, Citizens for Reliable and Safe Highways & Truck Safety Coalition