August 28, 2019

Ms. Heidi King
Deputy Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue S.E., West Building
Washington D.C. 20590-0001

Subject: Advanced Notice of Proposed Rulemaking (ANPRM)*: Removing Regulatory Barriers for Vehicles with Automated Driving Systems*, NHTSA Docket No. 2019-0036, 84 Fed. Reg. 24433 (May 28, 2019); 84 Fed. Reg. 36563 (July 29, 2019).

Dear Ms. King,

These comments are prepared and submitted by Mercedes-Benz USA, LLC on behalf of its parent company, Daimler AG. We appreciate the opportunity to comment on this important topic. We note that Mercedes-Benz USA is a member of the Alliance of Automobile Manufacturers and we support the Alliance comments on the subject ANPRM.

Current FMVSS requirements designed to facilitate or incentivize safer vehicle operation by a human driver, or to otherwise compensate for known human driver deficiencies, are unsuitable as applied to ADS-operated vehicles. For example, there is no safety purpose in requiring the display of visible telltales or other warning displays designed to alert a human driver of a vehicle malfunction or hazard condition (internal or external), because:

- An ADS must recognize and address all significant hazards and failures (i.e., those that would impede competent dynamic driving task (DDT) performance by the ADS) by design.
- The ADS is a fully dependent and integral part of the vehicle, rather than an independent and autonomous human agent exercising the vehicle's mobility functions. As such, the ADS already "knows" about any failure flagged by the on-board diagnostics system, and is programmed to respond appropriately based on extant operating conditions.
- An ADS-operated vehicle has no use for warning displays and enhancements appropriate for human drivers.

We note that, while it may be relatively easy to adapt certain existing FMVSS requirements that are unsuitable for ADS-operated vehicles in ways that would make it possible to demonstrate "compliance," we do not believe that such simple adaptations are appropriate. Such adaptations would serve no safety purpose, and would otherwise create unnecessary potential stop-sale and recall liability for affected manufacturers. For example,

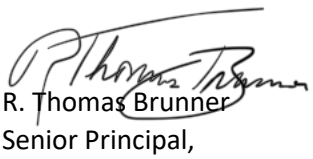
while manufacturers could continue to "comply" with malfunction warning requirements by simply proving that the ADS "receives" the malfunction information, such needless requirements should not persist for ADS-operated vehicles, which by design must both constantly self-monitor for failure conditions that could adversely affect its ability to perform the DDT, as well as appropriately respond to any such failure. Requiring manufacturers to prove such an inherent design is superfluous, akin to requiring a steering control system to provide the means of lateral vehicle motion control: there's no need for a requirement because it's already a fundamental design principle for the item. Moreover, the relevant business incentives in this case are also well-aligned with the public policy goals regarding safety, as customers would universally reject an ADS-operated vehicle that *didn't* provide fail-safe performance.

In addition, as the agency moves forward with its effort to adapt current FMVSS requirements designed for human-operated vehicles to fit ADS-operated vehicles, we encourage it to bear in mind that FMVSS requirements establish minimum safety performance thresholds, and that there hasn't been a major recall (i.e., one involving injury or death) attributable to non-compliance with an FMVSS standard in decades. Rather, all major recalls in recent decades have been attributable to defects unrelated to FMVSS compliance. This is not meant to belittle the importance of FMVSS compliance – we fully support the establishment of minimum safety standards for the health and credibility of the auto industry overall – but it does militate against revising or making new requirements that involve significant negative trade-offs in terms of increased cost, complexity and, especially, cybersecurity risk.

It is also important that, as a government-industry ADS community, we do not become so heavily invested – financially and culturally – in existing and near-term whole-vehicle, physical testing facilities for ADS-operated vehicle development and validation that we forsake the opportunity to develop far more comprehensive and efficient test and validation methods based on simulation. Unlike human driving behavior, which can be extremely variable and unpredictable, ADS operational behaviors are highly predictable and much less variable (within a range – and certainly with respect to determining compliance with acceptable response criteria). As such, ADS technology is particularly well suited to modeling and simulation tools and methods, both for development and for validation/demonstration purposes.

Thank you, again, for this opportunity to comment. Please feel free to contact R. Thomas Brunner (r-thomas.brunner@mbusa.com), or Barbara Wendling (734-997-3189), if you have questions about this letter.

Sincerely,



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