

DAIMLER TRUCK

North America

June 14, 2024

Honorable Sophie Shulman
Deputy Administrator
National Highway Traffic Safety Administration
1200 New Jersey Ave, S.E.
Washington, DC 20590

RE: Docket No. NHTSA-2024-0012: Daimler Truck North America Comments in Response to the Notice of Proposed Rulemaking for Electric-Powered Vehicles: Electric Powertrain Integrity Global Technical Regulation No. 20, Incorporation by Reference

Dear Deputy Administrator Shulman:

Headquartered in Portland, Oregon, Daimler Truck North America (“DTNA”) is the largest manufacturer and technology leader of medium- and heavy- duty vehicles in the United States. We design, engineer, manufacture, and market medium- and heavy-duty trucks, school buses, vehicle chassis, and their associated technologies and components under the Freightliner (FTL), Western Star (WST), Freightliner Custom Chassis (FCC), Thomas Built Buses (TBB), and Detroit Powertrain brands. With U.S. origins established over 80 years ago, DTNA proudly employs over 28,000 people, working across North America in 9 manufacturing plants, 11 parts distribution centers, and numerous satellite locations. Furthermore, DTNA is fully invested and committed to the development and evolution of our class 6-8 electric truck lineup: the eCascadia, eM2, MT50e walk-in van, and Jouley school bus. With this robust lineup, DTNA is the leader in heavy duty electric vehicle deployment in the U.S. with over 4 million battery electric miles of real-world freight operations nationwide.

DTNA would like to thank NHTSA for the opportunity to provide comments regarding this Notice of Proposed Rulemaking (“NPRM”) for Federal Motor Vehicle Safety Standard (“FMVSS”) 305a. DTNA supports the efforts by NHTSA to enhance public safety by implementing an upgraded electrical safety standard that includes heavy-duty vehicles and utilizes the existing Global Technical Regulation (GTR) No. 20. Below, please find DTNA’s comments on several critical topic areas.

DTNA Supports the Proposed Post-Crash Evaluation for Heavy-Duty Vehicles

DTNA supports NHTSA’s decision to establish consistent crash test performance and post-crash evaluative criteria for heavy-school bus electric vehicles that are consistent with existing standards and exceptions outlined in FMVSS 301. As the NPRM notes, currently, there are no equivalent full vehicle crash requirements for heavy-duty vehicles (excluding school buses) due to the complexity and variability inherent to each heavy-duty vehicle. As NHTSA has noted, conducting full scale crash tests of various configurations from a small volume of representative

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vehicles would be cost prohibitive and present serious test practicability concerns. (See 89 Fed. Reg. at 26709). To address this, DTNA supports the concept of the mechanical integrity test that is embedded in NHTSA's proposal to set performance requirements for certain electrical components to evaluate post-crash performance for non-school bus heavy-duty vehicles, as contained in GTR No. 20. However, further research is necessary to develop a repeatable, reproducible, and practical method for evaluating post-crash electrical safety of the Rechargeable Electrical Energy Storage System (REESS) component in heavy-duty vehicles, because as the NPRM notes, current GTR 20 loading conditions are specific to light-duty vehicles (89 Fed. Regulation. at 26709-710). The quasi-static loads used for light-duty vehicles are not appropriate for all heavy-duty vehicles because they do not account for the extensive variability in heavy-duty vehicle operations (e.g., long-haul driving, construction, mining). Many heavy-duty vehicles are exposed to and must manage greater stresses, vibrations, and impacts that the quasi-static loads used for light-vehicles do not account for. The quasi-static loads are not representative of the specialized manner or extreme environments in which these specialty vehicles are operated as well as dynamic loading conditions. Because of these complexities, DTNA supports additional research to be conducted in this area.

DTNA also supports NHTSA's proposal of expanding the dynamic moving contoured barrier test requirements to heavy-duty electric powertrain school buses, consistent with the requirements in FMVSS 301 and FMVSS 303.

DTNA Strongly Recommends Placing the Proposed Documentation Requirements in a Regulation Rather than in the FMVSS

In DTNA's view, the proposed documentation requirements set forth in S12.7, S12.8, S15, and if applicable S13.1 are more appropriately placed in a regulation and not in proposed FMVSS 305a. The proposed FMVSS 305a should be left to the substantive vehicle and equipment performance requirements¹, and vehicle certification and compliance should be solely evaluated on those technical aspects.

While sufficient documentation is important for vehicle operators and emergency responders when encountering an electrical vehicle, the sufficiency of the documentation does not affect vehicle performance. If the documentation requirements are included in the safety standard itself and the documentation is later determined to be lacking (potentially even in some minor regard)² that constitutes a noncompliance, this would trigger a stop-sale until the issue is corrected in production and even a recall of the vehicles. (See 49 U.S.C. § 30112, 49 U.S.C. § 30118). However, a stop-sale and recall of *vehicles* would not be an appropriate mechanism in the case of a noncompliance that arises because of a deficiency with the emergency response documentation.

¹ A motor vehicle safety standard is defined as "a minimum standard for motor vehicle or motor vehicle equipment *performance*." (See 49 U.S.C. § 30102(a)) (emphasis added).

² Under the Vehicle Safety Act, a stop-sale would still be required even if the noncompliance with the documentation is deemed to be inconsequential. (See 49 U.S.C. § 30112, 49 U.S.C. § 30115, 49 U.S.C. § 30120(h)).

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A recall requires notification to affected vehicle owners and provision of a free remedy. (See 49 U.S.C. § 30119, 49 U.S.C. § 30120(a)). In the case of a noncompliance with the documentation, notifying vehicle owners of the issue does not address or mitigate any potential safety risk because in this case the vehicle owner does not receive the emergency response documentation in the first instance.³ Further, there would be no remedy available to vehicle owners and no mitigating steps vehicle owners could take to reduce the safety risk presented by the documentation noncompliance. The vehicle itself continues to meet the FMVSS performance requirements. Notifying vehicle owners of a noncompliance with the emergency response documentation would lead to confusion about the fundamental safety of the vehicle and does not advance safety in this situation.⁴

Placing the emergency response documentation provisions in a general regulation is more aligned with the objectives of the Vehicle Safety Act. The purpose of having manufacturers supply the documentation is both to ensure that manufacturers have identified safety risks and safety risk mitigation strategies with their specific systems and to ensure that emergency responders (not vehicle owners) are provided with the information they need to mitigate and address the very specific safety risks that they will encounter at the scene of an incident. The examples cited in the NPRM where documentation requirements are placed in an FMVSS greatly differ from the documentation proposal here. In the cited examples in the NPRM,⁵ documentation is provided to the agency only upon request. Importantly, the documentation is relevant to the performance of the vehicle itself including details on the manufacturer's vehicle design and selected safety strategies. In other words, the documentation provisions contained within the FMVSS are targeted to address issues concerning whether and how the vehicle meets the minimum performance requirements. In this NPRM, however, the documentation is not associated with the vehicle meeting the performance requirements or information necessary to carry out the test procedure.

Documentation requirements similar to those presented in this NPRM and that do not pertain to the performance of the vehicle directly have been successfully managed under general regulations (e.g., Part 575 for Consumer Information, Part 563 for Event Data Recorders). It would be more consistent to keep documentation requirements with other procedural requirements, allowing the agency to review or collect such documentation without equating documentation concerns to substantive safety problems with the performance of the vehicle itself, but where the manufacturer still has a legal obligation to meet the documentation requirements.

³ The NPRM proposes that electric vehicle manufacturers submit standardized emergency response information to a NHTSA central depository for use by first responders.

⁴ It is reasonable to anticipate that if the documentation provisions were included in an FMVSS, any such noncompliance found to exist would lead to an influx of petitions for determination of inconsequential noncompliance which the agency would need to review and resolve through a separate process.

⁵ The NPRM cites to FMVSS 126, S5.6 and FMVSS 226, S4.24 as examples.

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DTNA Supports the Standardization of the Emergency Response Guide and Rescue Sheets

Standardizing the Emergency Response Guide (ERG) and Rescue Sheets is essential for effectively communicating potential risks to first responders and quickly providing vehicle-specific rescue information during crash or fire incidents. This allows for a prompt, effective, and safe emergency response. DTNA supports using ISO-17840-2:2019(E), as the model for standardization. This ISO standard provides structured information for rescuers about vehicle rescue sheets and emergency response guides, which are critical in effectively handling incidents involving vehicles.

Visual Inspection for Evidence of Electrolyte Leakage, Spillage, or Venting is the Appropriate Evaluation Method

DTNA values the NPRM's acknowledgement that additional research is needed to develop a repeatable, reproducible, and practical method that verifies the occurrence of various vented gases and potential harmful exposure to vehicle occupants. DTNA supports the proposal to conduct a visual inspection for evidence of electrolyte leakage, venting or rupture without disassembling any parts of the vehicle. At present, a visual inspection appears to be the only objective, practical and repeatable manner to evaluate the presence of electrolyte leakage, venting or rupture. Disassembling vehicle parts is not necessary to confirm the presence of any of those conditions and would introduce an unnecessary level of complexity. To ensure the inspection results in objective and verifiable outcomes, DTNA requests that the test procedure indicate that clear and demonstrable proof of the outcome of the inspection be captured both visually and in a written description of the findings.

In closing, DTNA is committed to the safety of heavy-duty electric vehicles and this important rulemaking effort for FMVSS 305a, will play a crucial role in ensuring that there is a clear benchmark of safety for battery system protection and integrity. DTNA again appreciates this occasion to provide our comments and we trust that NHTSA will take into strong consideration the feedback that we have presented in this letter. Please do not hesitate to reach out with any questions or concerns as we both share the same mission of continuously improving road safety in the United States.

Sincerely,



Ritchie W. Huang
Executive Manager
Safety & Government Affairs