Freudenberg Battery Power Systems LLC
2700 S. Saginaw Rd. | Midland, Mi 48640 | USA

Re: Federal Motor Vehicle Safety Standards; FMVSS No. 305a
Electric Powered Vehicles: Electric Powertrain Integrity Global
Technical Regulation No. 20, Incorporation by Reference

Docket No. NHTSA–2024–0012

Auburn Hills, MI, 06/14/2024

Freudenberg Battery Power Systems, LLC Comment on FMVSS 305a

To Whom It May Concern,

Please find below the Freudenberg Battery Power Systems, LLC (FBPS) official comment on FMVSS 305a:

NHTSA through FMVSS 305a seeks comments on the implementation of a Mechanical Integrity test specifically for Rechargeable Energy Storage Systems (REESS) applicable to heavy-duty vehicles, aiming to assess post-crash safety at a component level.

Heavy-duty vehicles are complex systems that vary widely in designs, sizes, and configurations, each featuring unique structural setups and weight distributions that can manage crash loads most effectively at the vehicle level. Designating a component-level Mechanical Integrity test at the REESS level for these vehicles will place undo expectations and burdens on the battery enclosure. Creating a single test at the REESS level that accurately reflects the diverse conditions across heavy-duty vehicle designs is exceptionally challenging.

Upon reviewing ECE R100 (Annex 9D), which is a comparative regulation, it is noted that the REESS-level Mechanical Integrity test is mandated solely for light-duty vehicles (classified as M1/N1 under ECE R100), with heavy-duty vehicles (classified as M2/N2 and M3/N3) exempted from this requirement as per the regulation. We request that the FMVSS 305a aligns with the approach outlined in ECE R100 for the Mechanical Integrity Test, as this alignment would ensure consistency in the evaluation of safety standards across different vehicle classifications.

Best Regards,

Freudenberg Battery Power Systems, LLC

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