FREEDMAN
SEATING COMPANY

November 25, 2019

Via Regulations.gov
U.S. Department of Transportation
Docket Operations, M-30
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue SE
Washington, DC 20590

Re: Advanced notice of proposed rulemaking, Occupant Crash Protection
Ref: Docket No. NHTSA-2019-0093, 49 CFR Part 571

Freedman Seating Company (FSC) is a manufacturer of seating for the transportation industry. We provide seats for various transportation vehicles with our main markets being converted vans, small, mid-sized, school and heavy-duty transit buses.

FSC supports the implementation of rear belt warning systems and it should be a requirement for all vehicles requiring Type 2 seat belts. Rear seating defined as the seating behind the driver and co-pilot (if any) seats.

Buses are different from passenger cars in ways that present challenges for a rear seat belt warning system. Buses can have many more passengers, in some cases as many as 90, and the environment is more harsh and dirtier. Occupants do not treat bus interiors with the same care as their passenger cars. As a result, any rear belt warning system will need to require minimal maintenance, be reliable and durable. In addition, buses often utilize an OEM chassis that is equipped with driver and copilot seats. It will be difficult integrating a passenger seat system with rear seat belt warnings that are the same as the OEM driver and copilot warning system. As a result, the warnings may not match.

Any rear belt warning system would be most effective if it utilized occupant detection and have driver alerts which are triggered when the seat is occupied, seat belt is unbuckled, and the vehicle's power is on. Visual alerts should be continuous until the condition is corrected. An audible alert should be a maximum of 60 seconds with an option to silence the alert. The audible sound type could be the same as that for the OEM warning regarding the driver seat or it could be different. There is some concern about alerts being a distraction to the driver when the vehicle is in motion. We feel it would make sense to have separate colors/symbols for rear seat passengers regarding occupant detection and belt usage.

Alerts to rear seating passengers would be most effective but relatively expensive and a challenge technologically. Seat occupancy criteria should be a minimum weight detection equal to that of a hybrid III 6-year old child, 51.6 lbs.

There are seat belt warning systems being developed that utilize wireless technology and such a system would be less complex than a wired electrical connected system. The limitation of a wireless system is the battery life and the more system features such as individual passenger alerts would reduce battery

life further. However, a battery-operated wireless system would be much simpler for large vehicles with many passengers as it would reduce the need for complex wiring systems.

Finally, we believe there should be a large degree of harmonization with ECE requirements.

Sincerely,

Digitally signed by David Klopp
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