



July 24, 2019

Mr. Michael Huntley

Division Chief, Vehicle Roadside Operations

Office of Carrier, Driver, and Vehicle Safety, MC-PSV, Federal Motor Carrier Safety Administration,

1200 New Jersey Avenue, SE

Washington, DC 20590

Re: Docket No. FMCSA-2018-0037, Department of Transportation [4910-EX-P]; 49 CFR Chapter III Subchapter B, Safety Integration of Automated Driving Systems-Equipped Commercial Motor Vehicles; Advance Notice of Proposed Rulemaking

Dear Mr. Huntley:

Pursuant to FMCSA's advanced notice of proposed rulemaking published in the Federal Register on May 29, 2019. Beep Inc., respectfully submits the comments below in response to the FMCSA ANPRM referenced above. We welcome the opportunity to offer feedback on the suitability of approaches FMCSA may take in revising Department of Transportation [4910-EX-P]; 49 C.F.R. Part Chapter III, Subchapter B, to address safety integration of automated systems-equipped commercial vehicles and help FMCSA to define a path that encourages and enables development and deployment of automated driving systems.

Beep, Inc. was founded by experienced fleet managers and technology entrepreneurs and seeks to offer the next generation of transportation services for autonomous passenger mobility to fleet owners and operators in low speed environments across the public and private sector. Beep's offerings are designed to drive differentiation and innovation, and delight the passengers of our customers by providing safe, clean, and efficient movement of passengers between defined locations on private and public roads. Because of this deep experience in transportation and technology, we share in FMCSA's objective to provide solutions that hold the physical safety of passengers, as well as that of other drivers and pedestrians, in the highest regard, as we partner to bring these offerings to market.

OUR SUGGESTED RECOMMENDATIONS

§. 355/S. 395.5 Maximum driving time for passenger-carrying vehicles.

The original rule states:

- (a) The hours of services regulations prohibit both property and passenger carriers from allowing or requiring any driver to drive as follows: (2) *Passenger*. More than 10 hours after 8 consecutive hours off duty within a 15-hour duty period, and more than 60/70 hours on duty in 7/8 consecutive days.

Suggested modification(s):

- a) Include the word “human” in front of the word “driver” to modify the sentence to read, “The hours-of-service regulations prohibit both property and passenger carriers from allowing or requiring any **human** driver to drive as follows:”
- b) For maximum clarity, add the sentence, “***Autonomous vehicles operating at SAE Automation Level 4 or higher are exempt from this regulation.***”

§. 392.7 Equipment, inspection and use.

The original rule states:

- (a) No commercial motor vehicle shall be driven unless the driver is satisfied that the following parts and accessories are in good working order, nor shall any driver fail to use or make use of such parts and accessories when and as needed:

Suggested modification(s):

- (a) Modify as follows: No commercial motor vehicle shall be ***operated*** unless the ***operator*** is satisfied that the following parts and accessories are in good working order, nor shall any ***operator*** fail to use or make use of such parts and accessories ***or parts and accessories reasonably considered functionally equivalent*** when and as needed:
 - The term “functionally equivalent” is taken from Appendix B to Part 553 of Title 49 regarding basis for applications for exemption; autonomous vehicles will not require all parts and accessories listed.

§. 393.80 Rear-vision Mirrors

The original rule states:

- (a) Every bus, truck, and truck tractor shall be equipped with two rear-vision mirrors, one at each side, firmly attached to the outside of the motor vehicle, and so located as to reflect to the driver a view of the highway to the rear, along both sides of the vehicle. All such regulated rear-vision mirrors and their replacements shall meet, as a minimum, the requirements of FMVSS No. 111 (49 CFR 571.11) in force at the time the vehicle was manufactured.

Suggested modification(s):

- (a) Modify as follows: Every bus, truck, and truck tractor ***designed to be operated by a human driver*** shall be equipped with two rear-vision mirrors, one at each side, firmly attached to the outside of the motor vehicle, and so located as to reflect to the driver a view of the

highway to the rear, along both sides of the vehicle. All such regulated rear-vision mirrors and their replacements shall meet, as a minimum, the requirements of FMVSS No. 111 (49 CFR 571.111) in force at the time the vehicle was manufactured.

(b) Vehicles designed to be operated at SAE Automation Level 4 or higher must be equipped with the above components or something reasonably considered to be “functionally equivalent.”

- An example of functionally equivalent technology that might be present on an autonomous vehicle would be a LIDAR sensor that allows the vehicle to “see” (sense) and respond to objects to the rear of the vehicle.

§. 393.82 Speedometer

The original rule states:

- (a) Each bus, truck, and truck-tractor must be equipped with a speedometer indicating vehicle speed in miles per hour and/or kilometers per hour. The speedometer must be accurate to within plus or minus 8 km/hr (5 mph) at a speed of 80 km/hr (50 mph).

Suggested modification(s):

- a)*** Modify as follows: Each bus, truck, and truck-tractor ***designed to be operated by a human driver*** must be equipped with a speedometer indicating vehicle speed in miles per hour and/or kilometers per hour. The speedometer must be accurate to within plus or minus 8 km/hr (5 mph) at a speed of 80 km/hr (50 mph).
- (b) Vehicles designed to be operated at SAE Automation Level 4 or higher are exempt from this regulation as speed is systematically regulated based algorithms that adjust vehicle speed based on information received through input sensors.***

§. 393.88 Television receivers.

The original rule states:

- (a) Any motor vehicle equipped with a television viewer, screen or other means of visually receiving a television broadcast shall have the viewer or screen located in the motor vehicle at a point to the rear of the back of the driver’s seat if such viewer or screen is in the same compartment as the driver.

Suggested modification(s):

- a) Vehicles designed to operate at Level 4 autonomy or higher are exempt from this regulation.*** See Florida Bill HB 7027

§. 393.209 Steering wheel systems

The original rule states:

- (a) The steering wheel shall be secured and must not have any spokes cracked through or missing

Suggested modification(s):

- (a) The steering wheel shall be secured and must not have any spokes cracked through or missing ***or, for vehicles designed to operate at Level 4 autonomy or higher, have a method of steering that allows the operator a reasonable ability to steer the vehicle at least functionally equivalent to that of a steering wheel.***

IN SUMMARY

We respectfully ask that FMCSA consider the proposed modifications above. We believe these modifications will increase the operation of autonomous vehicles, demonstrating an ability to operate safely as they are designed to do. This will only further help FMCSA evaluate the potential merits and drawbacks of autonomous vehicles that aim to drive indiscriminately alongside human operated vehicles and is a logical step towards full autonomous integration.

With kind regards,

Joe Moya
CEO