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*OFFICE OF THE ADMINISTRATOR
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION*

Docket: NHTSA-2020-0106

Advanced notice of proposed rulemaking (ANPRM)

Framework for Automated Driving System Safety

SUBMITTED BY: Çetin Meriçli, Founder and CEO of Locomotion

Locomotion applauds the US Department of Transportation (USDOT) and the National Highway Traffic Safety Administration (NHTSA) on the release of the ANPRM for the first ever framework for the safe operations of an automated driving system. We believe that an approach built on industry-developed, consensus-based safety standards is a smart and logical foundation for future regulations. We agree that these regulations should be performance-based, technology neutral and flexible enough to accommodate new technologies as they develop.

Locomotion is the world's first trucking technology platform to offer human-guided autonomous conveying on the road to full autonomy. Launched in 2018 by veterans of Carnegie Mellon's National Robotics Engineering Center, the Locomotion team includes some of the world's foremost experts in robotics technology, safety, and artificial intelligence. Through our core technology, the Autonomous Relay Convoy™ (ARC), one driver pilots a lead truck with technology augmentation while a follower truck operates in tandem through a fully autonomous system. Through this process, Locomotion can gain on-road, real world experience to train and develop its fully autonomous system and autonomous freight network while prioritizing safety and the human operators.

As such, a process-based approach, as laid out in UL 4600, has the potential to ensure appropriate levels of safety for these life saving technologies. Locomotion's members have been involved in the development of UL 4600 and will be involved in the upcoming commercial motor vehicle specific UL 4600-2. We understand that NHTSA should not tie it's future to only one standard and should be open to other standards development efforts. However, Locomotion is already utilizing the UL 4600 approach in the development of our own safety cases for our technology. UL 4600 is a young standard, and needs more involvement from the regulated community to ensure it can be flexible and adaptable enough to be usable in the long run. UL 4600 is already in the process of incorporating industry feedback into updates.

As mentioned in our comments to the USDOT Automated Vehicle Comprehensive Plan, the USDOT should be commended for its efforts to develop a multi-modal and consistent approach to automated vehicle technologies. However, we do believe that it is important for the USDOT, NHTSA and the Federal Motor Carrier Safety Administration (FMCSA) to treat different use cases differently. Use cases that incorporate professionally maintained, autonomous trucking convoys should be treated differently than individually-owned, light-duty conditional automation technologies. We look forward to participating in future research, pilots and demonstrations with the USDOT to provide relevant information, data and real-world examples for consideration in developing future autonomous trucking specific standards and regulations.

Automated vehicle technologies hold the great potential to improve safety, increase efficiency, lower emissions and improve economics for America's freight network. Locomotion's ARC technology is expected to produce an estimated 30% reduction in operating cost per mile, 8% reduction in fuel expense, and remove 41 metric tons of carbon dioxide from the air per tractor annually¹. The human-centric approach can help truck drivers move more freight, generate higher revenues and get paid a premium wage. By starting with convoying on the path to full automation, Locomotion's technology provides value for the customer today while ensuring a stable development path for higher levels of automation in the future.

Thank you,

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¹ <https://locomotion.ai/about/>