

## **Clearing a Bureaucratic Roadblock to Safer Driverless Trucking**

Autonomous commercial motor vehicles have great potential to improve roadway safety and logistics efficiency in the United States. Developers have been successfully validating their technology on U.S. public roads for years and are now prepared to enter commercial service. However, outdated federal regulations will pose challenges. One in particular—the requirement that operators of commercial motor vehicles stopped on or on the side of highways place warning triangles or flares around their disabled vehicles—presents a unique barrier that Congress can quickly address.

The Department of Transportation has long required operators of commercial motor vehicles that are disabled in highway traffic lanes or shoulders to immediately exit their vehicles to place reflective warning triangles or flares in order to alert other motorists of the potential hazard. The requirement for the placement of roadway warning devices makes intuitive sense, despite the limited empirical safety evidence supporting it.

The warning device rule poses a unique challenge for driverless operations of automated commercial vehicles because it implicitly assumes an operator will be seated in the vehicle and able to immediately exit the cab to place warning devices. This rule was never intended to apply to driverless commercial motor vehicles, which had not yet been conceived when the warning device placement requirement was promulgated in 1972.

In January 2023, automated vehicle developers Aurora and Waymo petitioned the Federal Motor Carrier Safety Administration (FMCSA) for an exemption from the warning devices requirement. To ensure the broader safety intent was preserved, the petitioners proposed that driverless, autonomous commercial vehicles would, in lieu of the warning device placement requirement, be equipped with cab-mounted warning beacons.

The warning-beacon system Aurora and Waymo proposed would consist of at least one rearward-facing light mounted on each side of the cab and at least one forward-facing light mounted on the front of the cab. The warning beacons would be installed at some point between the upper edge of the sideview mirrors and top of the cab for both forward- and rearward-facing lights. The companies provided two studies showing that cab-mounted warning beacons would achieve a level of safety at least equivalent to the warning-device requirement.

In December 2024, the FMCSA denied the exemption petition, citing a lack of data on the safety equivalence of cab-mounted warning beacons. This justification was especially odd because the agency concedes it has never conducted any research on the effectiveness of its warning-device requirement in enhancing safety. The suggestion from FMCSA seems to be that there is no official safety baseline by which to compare alternatives to warning devices, which thereby renders the agency unable to consider alternatives—even those that offer superior safety. If true, this greatly undermines the supposed safety basis for the existence of this longstanding rule.

Setting aside the arbitrariness of FMCSA's warning-device rule, Congress can easily resolve this bureaucratic roadblock to safer driverless operations by requiring the agency to promulgate amendments to its regulations to explicitly exempt from the warning-device requirement commercial motor vehicles if those vehicles are equipped with cab-mounted warning beacons.

**Recommended reform language:**

- (a) Not later than 15 days after the date of the enactment of this Act, the Secretary shall revise paragraph 392.22(b)(2) of title 49, Code of Federal Regulations (or successor regulations), to include the following:
  - (vii) Autonomous vehicles. The placement of warning devices is not required when a commercial motor vehicle is equipped with an automated driving system and cab-mounted warning beacons.