



**U.S. Department  
of Transportation**

**1200 New Jersey Avenue, SE  
Washington, D.C. 20590**

**Office of the Chief Counsel**

**Federal Motor Carrier  
Safety Administration**

October 9, 2025

Shelley Webb  
Chief Legal Officer  
Aurora Operations, Inc.  
280 N. Bernardo Ave.  
Mountain View, CA 94043

Dear Ms. Webb:

The Federal Motor Carrier Safety Administration (FMCSA) grants a limited waiver, subject to the attached terms and conditions, to Aurora Operations, Inc. (Aurora) from compliance with the warning device placement requirements in 49 CFR § 392.22(b), the steady-burning lamp requirement in 49 CFR § 393.25(e), and the requirements for the types and number of warning devices in 49 CFR § 393.95(f), to allow Aurora to use cab-mounted warning beacons in lieu of the warning devices required by 49 CFR § 393.95(f). This waiver is effective from 12:01 a.m. on October 10, 2025, through 11:59 p.m. on January 9, 2026.

This waiver covers Aurora's operation of Level 4 Automated Driving System (ADS) commercial motor vehicles (CMVs) subject to the Federal Motor Carrier Safety Regulations. This waiver also permits any other motor carrier to operate under the waiver, provided that it first notifies FMCSA in writing, certifying that it currently has cab-mounted warning beacons, the ability to comply with all terms and conditions of this waiver, and that it will comply with all terms and conditions of the waiver. FMCSA may publish on its website a copy of the waiver and a list of motor carriers operating under the waiver.

Under 49 U.S.C. §§ 31136(e) and 31315(a), FMCSA may grant a waiver if it determines that it is in the public interest to grant the waiver and that the waiver is likely to achieve a level of safety that is equivalent to, or greater than, the level of safety that would be obtained in the absence of the waiver. FMCSA may grant a waiver for nonemergency and unique events, limited in scope and circumstances, for a period not in excess of three months. Although FMCSA previously denied Aurora's request for an exemption (89 FR 105675, December 27, 2024), FMCSA has now determined that it is in the public interest to issue a waiver, limited in scope and circumstances, that is likely to achieve a level of safety that is equivalent to, or greater than, the level of safety that would be obtained in the absence of the waiver.

FMCSA reviewed information provided by Aurora in support of its request for exemption. FMCSA has determined that the attached waiver is narrower in scope than the broad exemption

request from Waymo LLC and Aurora that FMCSA previously denied. In this regard, the exemption request sought industry-wide regulatory relief whereby any motor carrier operating Level 4 ADS-equipped CMVs could operate under the waiver without any prior notice to FMCSA. In denying the exemption, FMCSA found that the applicants' request to "exempt a class of unspecified carriers using unspecified equipment on unspecified vehicles only further undermines the claimed likely equivalent level of safety." This waiver cures that deficiency, as it would apply to Aurora, and would not apply to other motor carriers operating Level 4 ADS-equipped CMVs unless they provide written notification to FMCSA and certify compliance with the waiver's terms and conditions.

Further, the waiver is narrower than the exemption request because it requires that operations occur primarily on the U.S. Interstate Highway System. In denying the exemption, FMCSA noted that "road curvatures or elevations may affect visibility of a beacon located in a fixed position on the cab." This waiver limits operations "primarily [to] the U.S. Interstate Highway System," where standardized road geometry minimizes the frequency of sharp curves and crests that could obstruct visibility. Moreover, the waiver's scope prohibits operations that would require a commercial driver's license endorsement (*e.g.*, tank vehicles, double/triple trailers) if a driver were present, as well as the transportation of passengers or hazardous materials.

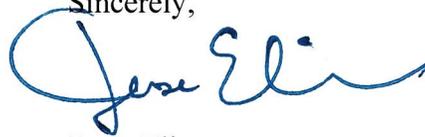
In addition, the waiver includes technical specifications to resolve potential ambiguity. In denying the exemption, FMCSA stated that the application did not "provide sufficient details about the proposed alternative devices," particularly with the vague allowance for "any configuration of similar effectiveness." In contrast, Section III.B of the waiver mandates specific mounting, location, and photometric performance standards (SAE J595). The waiver also imposes additional requirements for when the beacons must activate and how long they must remain flashing. Further, the waiver does not allow for configuration flexibility outside the terms and conditions set forth in the waiver. Moreover, Section III.B.6 of the waiver requires that the beacons "be designed and installed with redundant power sources to prevent failure due to a single-point power failure," which FMCSA previously noted as a deficiency with the exemption application.

In denying the exemption, FMCSA also stated that Aurora's naturalistic study submitted in support of the application showed that a lower percentage of drivers responded to the beacons than to warning triangles in five of eight scenarios presented: daytime tests at left curve and straight locations, and nighttime tests at crest, right curve, and straight locations. However, under the waiver, the curve and crest scenarios would be present to a much more limited degree, since operations must occur primarily on the U.S. Interstate Highway System, and the differences in driver response at straight locations were immaterial (*i.e.*, less than four-tenths of one percent), according to the study. Moreover, as FMCSA noted, Aurora's study concluded that a warning beacon elicited a higher percentage of responses than warning triangles overall. FMCSA has noted in a research context "the historically unresolved questions of whether the use of such [warning] devices improves traffic safety and, if so, how and to what extent." (90 FR 1591, January 8, 2025). Without information on the level of safety the current regulatory requirements provide, the two studies submitted in support of Aurora's application reasonably support a determination that motorists detect and respond to the beacons at a similar rate as existing warning devices under the terms and conditions imposed by this waiver.

Finally, the waiver addresses concerns about the lack of monitoring controls by requiring specific, detailed reporting requirements to allow FMCSA to monitor the safety performance of motor carriers operating under the waiver. In denying the exemption, FMCSA concluded that the application “lacks necessary monitoring controls to ensure highway safety.” Section IV of this waiver implements these exact controls by requiring detailed crash and term reporting. Specifically, under Section IV.B, Aurora, and any other motor carriers operating under the waiver, must provide FMCSA with aggregate data on beacon activation events, reports on the performance and reliability of the beacon systems—including malfunctions—and the specific mounting locations used (within the terms and conditions set forth in the waiver). This will allow FMCSA to oversee the safety performance of the alternative technology continuously and to gather critical data, while monitoring activities under the waiver. Finally, Aurora, and any other motor carriers operating under the waiver, are required to meet with FMCSA upon request to provide information about the beacons’ performance.

For these reasons, FMCSA finds the waiver is likely to achieve a level of safety that is equivalent to, or greater than, the level of safety that would be obtained in the absence of the waiver. In addition, FMCSA finds that it is in the public interest to grant the waiver to promote innovation and to enable commercial deployment of ADS CMVs to enhance safety and mobility for the American public. Finally, FMCSA finds that deployment of cab-mounted warning beacons in Level 4 ADS-equipped CMVs is a unique and nonemergency event because the operation of a CMV without a driver who can place warning devices on the roadway has never occurred previously.

Sincerely,



Jesse Elison  
Chief Counsel

Attachment