Akin®

California Issues First Autonomous Vehicle Deployment Permit

Feb 5, 2021

Reading Time : **6 min**

By: Susan H. Lent, Lauren Dailey (Transportation Policy & Regulatory Specialist)

On December 23, 2020, California Department of Motor Vehicles (DMV) issued the state's first autonomous vehicle deployment permit to Nuro, Inc. The permit allows Nuro, a Mountain View, California based Robotics Company, to make its autonomous technology commercially available outside of a testing program. Nuro will use the permit to bring a commercial autonomous delivery service to the Bay Area. With the permit, Nuro will deploy its fleet of Prius vehicles in fully autonomous mode for a commercial delivery service on surface streets within designated parts of Santa Clara and San Mateo counties.

The DMV's announcement follows recent developments in the state in federal government to regulate innovation in automated driving systems (ADS) to meet the need for a regulatory overhaul to keep pace with technological development and maintain safety on roadways since existing Federal Motor Vehicle Safety Standards (FMVSS) were drafted before autonomous vehicles were contemplated. While fully automated vehicles are not currently available for sale, highly and fully automated vehicles are being tested around the country and the world. In the last few months, agencies within the federal and California governments took steps to pave the way for ADS and automated vehicles to enter the mainstream.

National Highway Safety Administration Advance Notice of Proposed Rulemaking

The National Highway Traffic Safety Administration (NHTSA), an agency within the Department of Transportation (DOT), has the authority to create rules to enforce vehicle performance standards and foster partnerships with state and local governments. On November 19, 2020, NHTSA released an advance notice of proposed rulemaking (ANPRM), which announces the agency's plan to address ADS regulation and requests comments from

the public to develop a baseline framework for ADS safety regulation.[1] NHTSA aims to define, assess and manage the safety of autonomous vehicle performance by drawing upon existing federal and non-federal frameworks. NHTSA has provided the public 60 days from publication to comment on the notice.

Prior to its most recent notice, NHTSA issued ADS-related publications that addressed the challenges in applying and adapting existing FMVSS to ADS vehicles. For example, on March 30, 2020, NHTSA published a notice of proposed rulemaking addressing crashworthiness standards and provided a unified set of proposed regulatory text applicable to vehicles with and without ADS functionality.[2]The November 19 request for comments builds on these prior publications and previews NHTSA's initial priorities in developing regulations. Further, the notice reflects that as small-scale deployments start to appear in the coming years, NHTSA plans to address the safety risks that may arise using its defect investigation and remediation authority.

In the advance notice of proposed rulemaking, the NHTSA specifies four core regulatory areas for consideration that should be the focus of regulatory attention:

1. How ADS receive information about their environment through sensors.
2. How ADS detect and categorize other road users (vehicles, motorcyclists, pedestrians, etc.), infrastructure (traffic signs, signals, etc.) and conditions (weather events, road construction, etc.).
3. How ADS analyze the situation, plan the route it will take on the way to its intended destination, and makes decisions on how to respond appropriately to the road users, infrastructure, and conditions detected and categorized.
4. How ADS control and execute driving functions.

The ANPRM also provides several examples of existing regulations that highlight potential future approaches. Matters on which the NHTSA is seeking public comments include:

- Obstacle course-based validation in variable scenarios and conditions.
- Vehicle programming to drive defensively in a risk minimizing manner.
- Timing and phasing of FMVSS development and implementation.
- Critical factors considered in designing, assessing and selecting administrative mechanisms, including consistent and reliable assurance of safety and technology,

neutrality/performance-based manufacturing standards, predictability, transparency, efficiency, and equity, to promote market-based innovation.

Within the most recent ANPRM, NHTSA offered that it may be premature to develop and promote a specialized set of performance standards for ADS competency. Despite the progress the ADS industry has made over the past several years, no vehicle equipped with an ADS is yet available for purchase in the United States or deployed across the United States. Safety drivers still oversee the ADS during testing for most companies, though some companies have progressed to the later stages of on-road testing.

Efforts to develop ADS frameworks from FMVSS or other NHTSA existing standards do not yet have the same robust testing and performance metrics available as traditional vehicles. Specifically, FMVSS set minimum requirements for vehicles that are performance-based, objective, and established with precise and repeatable test procedures. A premature standard might focus on the wrong metric, potentially placing constraints on the wrong performance factors, while missing other critical safety factors.

California Public Utilities Commission Authorization of Drivered and Driverless Autonomous Vehicle Passenger Service

With the federal government moving slowly to regulate autonomous vehicles, states, including California, have stepped in and implemented their own regulations. On November 19, the California Public Utilities Commission (CPUC), which regulates the safety and economics of California's public services and utilities, including passenger transportation companies, for-hire passenger carriers (limousines, airport shuttles, charter and scheduled bus operators), and Transportation Network Companies, approved an autonomous vehicle program that will allow autonomous vehicles to offer shared trips and charge fares.

The CPUC's most recent authorization builds on a previous rule issued on May 18, 2018, which authorized two pilot programs that allowed participants to transport members of the public as passengers in autonomous vehicles so that the public can provide critical feedback to the CPUC and the permit holders. Thus far, seven companies have received CPUC pilot program permits, which allow them to offer autonomous vehicle rides, but not to charge fares.

The CPUC's most recent decision establishes permitting opportunities for two different programs: the Drivered Autonomous Vehicle Deployment Program and the Driverless Autonomous Vehicle Deployment Program, which allow participants to offer shared rides and

accept monetary compensation for rides in autonomous vehicles. The CPUC cites four key goals for the issuing and deployment of this decision:

1. Protecting passenger safety.
2. Expanding the benefits of autonomous vehicle technologies to all of California's communities.
3. Improving transportation options for all, particularly for disadvantaged communities and low-income communities.
4. Reducing greenhouse gas emissions and air pollutants, particularly in disadvantaged communities (the CPUC will collect data to monitor the participants' progress toward each of the goals).

Under the new regulation, to obtain a permit, a company must first receive a "Permit to Deploy Autonomous Vehicles on Public Streets" permit through the DMV. Then, the company must apply for a CPUC permit, which must be approved by vote of the commission. To apply for a CPUC permit, applicants must submit Passenger Safety Plans in detail along with a COVID-19 emergency plan. If a permit is awarded, participants must also submit quarterly data reports that enable stakeholders to track company progress and ADS data.

The author of the decision, Commissioner Genevieve Shiroma, anticipates companies to start applying for CPUC permits quickly. Of note, the CPUC decision does not impose any safety requirements since the DMV already incorporates safety standards in its autonomous vehicle permits, and the DMV requires companies to submit the same safety self-assessment specified in the voluntary NHTSA guidance. The CPUC does require ADS companies to submit a number of reporting requirements aimed at ensuring safety, accessibility, equity and environmental justice and quarterly reports.

The CPUC's decision is the first step for commercial autonomous vehicle ride-hailing to occur in California. Although some states are ahead of California in autonomous vehicle regulation, the CPUC rules could influence future policy and set a path for companies that have been operating in the ADS space previously in other notable areas, to move to California.

Conclusion

California's new iteration of autonomous vehicle guidance and NHTSA's proposed rulemaking are significant in that they both address the growing need for regulations in regard to the deployment of ADS. NHTSA's request for comments demonstrates a federal response to

evolving technology with focus on the importance of ensuring autonomous vehicles will be safely integrated into the transportation network. While President Biden took office last month, the status and timing of these regulations remain unclear. There does appear to be bipartisan support for autonomous vehicle regulations, and the Biden administration may have new momentum to regulate these vehicles from a safety perspective. Comments received in response to the ANPRM is the first step for NHTSA to develop safety regulations that take industry practices, technology metrics and driving performance into account and provide a federal framework that will spur further innovation and ultimate commercial availability of these vehicles.

---

[1] Framework for Automated Driving System Safety, No. NHTSA-2020-0106, 49 CFR Part 571 (Nov. 19, 2020).

[2] NHTSA has also previously published recommendations to ADS developers, including automakers and technology companies, most prominently in a series of publications: *Automated Driving Systems 2.0: A Vision for Safety, Preparing for the Future of Transportation: Automated Vehicles 3.0, and Ensuring American Leadership in Automated Vehicle Technology: Automated Vehicles 4.0.*

Categories

Autonomous Vehicles

other associated entities under which the Akin Gump network operates worldwide, please see our Legal Notices page.