

Autonomous Driving in California: A New Frontier or Business as Usual?

The future for autonomous vehicle technologies is developing rapidly and California is quickly trying to re-establish itself as a leader in what many project to be a trillion dollar industry. On March 10, 2017, the California Department of Motor Vehicles (DMV) released its latest set of draft regulations governing the testing and deployment of autonomous vehicle technologies. The 33-page proposal builds upon two earlier drafts published in December 2015 and September 2016 and allows for the testing and possibly eventual deployment of fully autonomous vehicles on California's roads without human back-up drivers inside the vehicles.

The California DMV's initial December 2015 draft regulations were heavily criticized by vehicle manufacturers and technology companies alike as inhibiting innovation in a state that is home to an unmatched concentration of innovation-leading companies. The agency seemed to have listened to the comments of numerous leading innovators in an effort to loosen the requirements for testing and deployment of autonomous vehicle technologies in its September 2016 draft, which seemingly had adopted as regulations many of the National Highway Traffic Safety Administration's (NHTSA) federal guidelines on automated vehicles also issued last fall. Despite this, some will still question whether the regulations remain overly restrictive.

California's announced commitment to advancing innovation is especially important in an environment where other states like Michigan and Florida recently challenged California's forerunner role for testing self-driving vehicles by enacting liberal autonomous vehicle laws and regulations. The California DMV has stated that it believes these new rules are the next step to eventually allowing completely driverless autonomous vehicles on California roadways in the very near future.

Vehicles Without Drivers and Driving Functions

The most notable change from the December 2015 draft regulations is the California DMV's proposal to establish a framework that allows for completely driverless testing of autonomous vehicles. In its March 2017 proposal, the California DMV no longer requires a human driver to be present while testing autonomous vehicles on public roads in California, a rule that is similar to the Michigan state law enacted last December. Although the September 2016 draft mentioned the possibility of driverless testing, its latest draft has affirmed the California DMV's commitment to allow testing of vehicles without human drivers on California roads. Specifically, the California DMV only requires remote operators who are licensed drivers, rather than human back-up drivers in the vehicle. These remote operators, however, must be capable of monitoring the operation of the self-driving vehicle. They also need to be able to communicate with the passengers in real time.

Similar to the September 2016 draft, the March 2017 proposal also disposes of the requirement for autonomous vehicles to be equipped with a steering wheel and brake pedals when they are tested for eventual deployment. The approach to allow testing without traditional controls is unavailable in other large car markets like New York where existing laws still require the driver to have at least one hand on the steering wheel at all times.

Testing Permit Required

California has licensed more companies than any other state for testing of autonomous vehicles on public roads. The proposed permit requirements are slightly different depending on whether the manufacturer tests vehicles with a human driver present in the vehicle or whether fully autonomous vehicles are being tested. In both cases, manufacturers need to provide proof of their ability to respond to any liability arising from the testing of autonomous vehicles and satisfy certain insurance requirements.

Permit requirements for manufacturers intending to test fully autonomous driverless vehicles on California roads include approval from NHTSA to test vehicles without conventional controls. In addition, companies need to certify that a two-way communication link between the vehicle and the remote operator and any passenger has been established. Information on the vehicle's location and status must constantly be available by teleoperation systems or similar technologies.

The regulations also require companies to submit information as to the intended operational design domain in which the vehicles are supposed to be operated, namely information on the roadway type, speed range, environmental conditions and domain restrictions. Further permit requirements include establishing a training program for remote operators, certain specific disclosures to vehicle passengers, and the creation of a law enforcement interaction plan.

Coordination Instead Of Cooperation with Local Authorities

In a notable departure from the September 2016 draft, the California DMV lessened the regulatory cooperation requirements with respect to testing procedures. The September 2016 draft required that manufacturers conduct testing "in cooperation with local authorities." The cooperation requirement was widely regarded as having the potential to halt innovation entirely. Stakeholders argued that it encouraged municipalities to promulgate their own regulations leading to an unworkable patchwork regime of municipality requirements for autonomous vehicles — California has 58 counties and 482 incorporated cities.

The California DMV dropped the cooperation requirement in its latest draft and now requires companies to simply coordinate with local agencies and notify them of their testing intentions. At the same time, however, and contrary to several other states with liberal self-driving vehicle regulations, the California proposal still requires manufacturers to submit so-called disengagement reports detailing each deactivation of the autonomous mode in case of a failure of the technology. While these reports are likely meant to provide transparency and develop a higher degree of acceptance of autonomous technologies among the general public, they could be seen as hindering innovation and progress within the industry in California.

Compliance With Federal Safety Standards Sufficient

The new draft regulations mandate that autonomous vehicles meet federal safety standards unless they were granted an express exemption from NHTSA. In other words, the new regulatory framework allows manufacturers to go through self-certification procedures without any third party check in order to represent that their vehicles are able to operate safely on public roads. Instead of creating its own safety standards and guidelines for operating autonomous vehicles on public roads, the California DMV simply requires manufacturers to provide a copy of the federal safety assessment letter that the manufacturer submitted to the NHTSA. This is a very positive development for the industry.

Deployment of Autonomous Vehicles

As was the case in its previous draft, the California DMV clearly distinguishes between testing and deployment of autonomous vehicles. Similar to the distinction with respect to testing procedures, the March 2017 proposal establishes a regulatory framework for the deployment of autonomous vehicles with both a driver and no human driver present in the vehicle. The deployment regulations have similar financial responsibility, permit and safety requirements as the testing regulations.

Notably, while the September 2016 draft appeared somewhat vague with respect to how much testing the SAE Level 3 vehicle systems need to undergo before they can be deployed, the current draft specifically addresses this issue. The March 2017 proposal requires a permit for the deployment of automated vehicle systems of Level 3, 4 and 5 and requires that the manufacturer certifies during the application process that it has conducted tests and validation methods leading to the conclusion that the vehicles are safe for deployment on public roads. The California DMV will approve the application if it determines that the manufacturer conducted testing "necessary" for the department to conclude that the autonomous vehicles are safe to operate on California's roads. Unfortunately, a clarification of this vague requirement or any tangible parameters is not provided.

The latest proposal also no longer includes provisions from the September 2016 draft, which — according to several industry stakeholders — effectively required manufacturers of vehicles without traditional mechanisms to control the vehicle to wait for up to a year from the time they concluded their testing to time of deployment. This change was accomplished by omitting certain reporting requirements for these manufacturers.

Final Proposal Triggering a Formal Rulemaking Process

The California DMV regards the new regulations as a final proposal, which will trigger the formal rulemaking process. As it has done in the past, the agency is soliciting comments from vehicle manufacturers, technology companies, local governments, insurance companies, consumer protection groups and other stakeholders for a 45-day period, upon conclusion of which the California DMV will hold a public hearing on April 25, 2017. The new rules could take effect as early as November 2017, assuming no major obstacles arise.

Has California Reclaimed Its Title as a Leader in This Space?

The proposed regulations, if enacted, have the potential to reestablish California as a desirable testing ground for the 27 companies currently holding permits to test autonomous vehicles in California. Vehicle manufacturers and technology companies may welcome this latest draft of the regulations given their criticism of previous drafts as being too rigid and restrictive. Consumer advocates, however, will no doubt continue to voice concerns that these proposed regulations do not adequately protect the safety of the general public.

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