November 11, 2016

Brian G. Soublet, Assistant Chief Counsel
Department of Motor Vehicles
Legal Affairs Division
PO Box 932382, MS C-244
Sacramento, CA 94232-3820

Dear Mr. Soublet:

On behalf of the more than 31,000 members of the National Society of Professional Engineers (NSPE), we submit the following comments to the California Department of Motor Vehicles (CDMV) for their careful consideration in response to the revised draft regulations for the deployment of autonomous vehicles issued on September 30, 2016.

Recognizing the promise of autonomous vehicles, NSPE has been a leading advocate on the need to place the public health, safety, and welfare first, and require a licensed professional engineer to play a key role in the development, testing, and safety certification of autonomous vehicles.

NSPE was impressed and pleased with the draft regulations issued by the CDMV in December 2015. With these draft regulations, the Department took a thoughtful and safety-focused approach, working to improve this technology and protect the public health, safety and welfare.

NSPE is disappointed to see that the revised draft regulations issued on September 30, 2016 remove the requirement for a vehicle demonstration test to be conducted by a third-party testing organization to provide an independent verification of the autonomous vehicle’s ability to perform key driving maneuvers that are typically encountered in real-world driving conditions. With this revision, there is no longer the requirement for a third-party certification of autonomous vehicles and technologies by someone in the decision chain who has a duty that puts public safety first and overrides competitive pressures-- i.e., a professional engineer.

In the recently-released Federal Automated Vehicles Policy, the National Highway Traffic Safety Administration (NHTSA) acknowledges there are major ethical issues associated with the deployment of autonomous vehicle technologies. NHTSA, however, did not propose methods for addressing them, leaving these critical considerations up to manufacturers and interested stakeholders. Professional engineers should play a key role in this evaluation as their oath in holding the license is to place the public health, safety, and welfare above all other considerations.

The September 30, 2016 CDMV draft regulations allow manufacturers and suppliers to self-certify, thereby eliminating a critical third-party safety check. If the CDMV chooses to move forward with the regulations without third-party certification, NSPE urges the CDMV to require verification by a licensed professional engineer, internal to the development company. The licensed professional engineer will affix his or her seal to the engineered component attesting to the conclusion that the design is adequately protective of the public health, safety, and welfare. A century of experience demonstrates that protection of public safety is best served when there is someone in the decision chain who
does not face pressure from shareholders or non-technical management to meet budget, project timeline or sales projections. A professional engineer is uniquely well-positioned to serve in this capacity.

Despite encouraging results of autonomous vehicle deployments in controlled environments, there is still significant work to be done before the achievement of human-operated and autonomous vehicles safely sharing public roadways. Many factors—weather, pedestrians, road conditions—are common, rapidly changing, and highly unpredictable.

The risk posed by failing to adequately address public safety protections are too great to ignore. In the absence of NHTSA revising its policy, NSPE urges states, including the CDMV, to incorporate such requirements in rulemaking and manufacturers to incorporate these steps in their deployment of the various iterations of this technological advancement.

NSPE urges that the CDMV, in its development of regulations related to deployment of autonomous vehicles, work to ensure that the policies recognize and incorporate the key role of professional engineers in the development of autonomous vehicles. Professional engineers already play a key role in the protection of the public health, safety, and welfare of the public using the nation’s infrastructure through state-based regulations. The design, development and deployment of autonomous vehicles should not be treated any differently and should require the involvement of professional engineers to give the highest level of assurance to the protection of the public health, safety, and welfare.

NSPE greatly appreciates this opportunity to provide comment to the CDMV. NSPE and the professional engineers it represents have a foremost responsibility to protect the public health, safety, and welfare—and to make others aware of ways that safety may be jeopardized. If we can answer any questions or comments, please contact Arielle Eiser, Senior Manager of Government Relations, at aeiser@nspe.org.

Sincerely,

Kodi Jean Verhalen, P.E., F.NSPE
President
National Society of Professional Engineers