

November 12, 2018

Office of the Secretary
U.S. Department of Transportation
1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140
Washington, DC 20590-0001

**RE: The National Society of Professional Engineers' Public Comment on
Docket ID No. DOT-OST-2018-0149, *Preparing for the Future of
Transportation: Automated Vehicles 3.0* (AV 3.0)**

On behalf of the more than 31,000 members of the National Society of Professional Engineers (NSPE), NSPE submits this comment in response to the Office of the Secretary of Transportation (OST) *Preparing for the Future of Transportation: Automated Vehicles 3.0* (AV 3.0).

NSPE has consistently and proactively engaged and advocated for the need to ensure that major technological, safety, and ethical implications are considered before engaging in testing and deployment of autonomous vehicles on public roads. Just this year, NSPE submitted their newly released [Autonomous Vehicles: A Public Regulatory Policy Guide](#) to the Department of Transportation in preparation for the release of these new federal guidelines. In 2017, NSPE urged NHTSA to revise its policy to better address safety concerns regarding self-certification and performance criteria, and ethical concerns.

In this newest report, the Department of Transportation prioritizes safety in the development of strategies to advance innovation and strengthen public confidence in these emerging technologies. Unfortunately, rather than strengthening public safety and confidence, the voluntary guidelines in this new version create more uncertainty, and potentially put the public at greater risk.

NSPE strongly urges the DOT to revise its policy to address the following key issues:

- Self-certification is insufficient to ensure public safety. Autonomous vehicle manufacturers should be required to submit to third-party verification of pre-determined technical and safety guidelines before further expansion and rollout. Licensed Professional Engineers with technical AV expertise should be part of that verification process.
- The public doesn't believe autonomous vehicles are safe. In a recent AAA survey, 73% of American drivers reported that they would be too afraid to ride in a fully self-driving vehicle. Safety was their primary

concern. If the Department of Transportation wants to encourage innovation and create an environment where the public can be excited and confident about the future of transportation, consumers need to be assured that adequate and verified testing is at place.

- Autonomous vehicles need to be able to safely operate within the country's existing infrastructure. The Department of Transportation encourages the development of connected infrastructure that has the potential to improve safety and efficiency of autonomous vehicles. While NSPE commends this goal, we also believe it is vitally important that autonomous vehicles be able to operate safely and correctly within existing infrastructure environments. Enhancements will take time to build. A focus on AV technology that can operate safely within existing environments fulfills the DOT's goal of removing barriers to technological advancements, while protecting public safety.
- Ethical implications need to be considered. The enormous ethical implications of deploying autonomous vehicles are simply not addressed in current guidelines, which is perplexing. While NSPE appreciates the DOT's desire to encourage innovation and to not hamper technological advancements, we feel it has sidestepped its responsibilities as a regulatory body. The guidelines offer no concrete regulatory solutions to some of the most pressing issues regarding autonomous vehicles. For example, no proposed methods for addressing life-and-death decisions are provided, leaving these critical considerations solely up to manufacturers. A third-party perspective is important, and the DOT has an opportunity to be that third party, incorporating the input of all stakeholders while simultaneously placing the public health, safety, and welfare above all other considerations.

Recognizing the promise of autonomous vehicles, NSPE has been a leading advocate for placing the public health, safety, and welfare first, and to require a licensed professional engineer to play a key role in the development, testing, and safety certification of autonomous vehicles. 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. Given the unique technical and ethical expertise that professional engineers possess, NSPE strongly believes professional engineers are an indispensable asset for recognizing and addressing the ethical and technological challenges raised by autonomous vehicles

The risks posed by failing to adequately address public safety protections are too great to ignore. For DOT to achieve its mission to “lead efforts to address potential safety risks and advance the life-saving potential of automation” the Department of

November 12, 2018

Transportation must find the means to address the current lack of public confidence through more deliberate discussions on accountability and liabilities.

NSPE greatly appreciates this opportunity to provide comment on the guidelines set forth in the *Preparing for the Future of Transportation: Automated Vehicles 3.0*. Any further questions, please contact Stephanie Hamilton, advocacy and government relations manager, at shamilton@nspe.org.

Sincerely,

A handwritten signature in black ink, reading "Michael Aitken". The signature is fluid and cursive, with the first name "Michael" and last name "Aitken" clearly distinguishable.

Michael Aitken,
PE, F.NSPE President

Cc: NSPE Board of Directors
Tim Austin, P.E., F.NSPE, Past President