

NSPE Position Statement No. 03-1772—Autonomous Vehicles

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NSPE Contact: Committee on Policy and Advocacy

Professional Policy Supported: 03-Emerging Technologies

STATEMENT:

Because the development of autonomous vehicles will have profound impacts on the public health, safety and welfare, it is the position of NSPE that the testing and deployment of such technologies must include a licensed Professional Engineer.

DISCUSSION:

The rapid advancement of autonomous vehicle technologies, with the eventual goal to develop driverless or entirely autonomous vehicles presents an exciting phase of the technological advancements of humans. This rapid advancement, however, presents the risks associated with development of an advanced technology to be deployed within an aging infrastructure and also on roads occupied by vehicles without this advanced technology.

The automotive industry estimates that by 2025, as many as 230,000 driverless or entirely autonomous vehicles could be sold each year around the world, potentially swelling to 11.8 million a decade later.

RECOMMENDATIONS:

1. To ensure the health, safety, and welfare of the public is held paramount in this development, testing, and deployment, licensed Professional Engineers must be involved in each step of this process to assure transparency. Licensed Professional Engineers should be employed by autonomous vehicle and autonomous technology developers to provide in-house oversight of the development, testing, and deployment, or consulting a third-party licensed Professional Engineer should be used to verify the safety and security of the technology in development, testing, and deployment.
2. Licensed Professional Engineers must be integrally involved in the comprehensive and coordinated development of local, state, or federal standards that will govern the development, testing, and deployment of these autonomous technologies.
3. Reference NSPE's "Autonomous Vehicle: A Public Regulatory Policy Guide" for further guidelines to measure safety readiness of autonomous vehicles under consideration for deployment.