Policy Rundown

For ITS America Advocacy Trust and Innovation Trust

Administration and Regulatory Affairs

**USDOT Releases Update to 2016 Federal Automated Vehicle Policy**

Transportation Secretary Elaine Chao released the Automated Driving Systems 2.0, an update to the Federal Automated Vehicle Policy of 2016. According to a USDOT Fact Sheet, the guidance “replaces the 2016 Federal Automated Vehicles Policy, keeping what works; but streamlines, refines, and clarifies areas of concern that may hinder innovation and further a confusing patchwork of regulation.”

The voluntary guidance suggests the following changes from the 2016 Obama Administration policy:

1. The guidance focuses on SAE International Levels of Automation 3-5 – Automated Driving Systems (ADSs) – Conditional, High, and Full Automation);
2. Clarifies the guidance process and that entities do not need to wait to test or deploy their ADSs;
3. Revises unnecessary design elements from the safety self-assessment; an
4. Aligns Federal Guidance with the latest developments and industry terminology; Clarifies Federal and State roles going forward.

**Early Analysis:** The previous 2016 policy was open-ended and suggested that SAE Level 2 “Driver Assistance” systems were within scope of the policy. The 2017 policy update suggests they are out of scope by focusing on SAE levels 3-4.
The 2016 guidance establishes expectations that Automated Vehicle system manufacturers would provide “safety assessment letters” under deadline. “NHTSA would expect manufacturers and other entities to provide a Safety Assessment at least four months before active public road testing begins on a new automated feature.” This 2017 update signals that there is “no waiting period or delay to begin testing or deployment” and no new barriers or reporting requirements have been added. The safety assessment letter elements are reduced from 15 elements to 12, removing ethical considerations, validation methods, and registration and certification and an illustrative template will be released. The 2017 policy re-characterizes the “safety assessment letter” as a voluntary “self assessment” that should “...not serve as an exhaustive resort of every action and entity took to address a particular safety elements.” The purpose of the “self-assessment is to “showcase” manufacturers approach to safety  

In contrast to the 2016 policy, the 2017 highlights best practices to state legislatures. Best practices include to be:

1. “technology neutral”
2. provide licensing and vehicle registration procedures similar to conventional vehicles,
3. develop procedures for public safety to respond to crashes,
4. review traffic laws for unnecessary regulatory barriers.

**Technology Opportunities - TIGER Grants Open - Deadline for Application October 16, 2017**

USDOT today announced the opportunity for state and local stakeholders to apply for $500 million in discretionary grant funding through the Transportation Investment Generating Economic Recovery (TIGER) program. Grants may not be less than $5 million and not greater than $25 million, except that for projects located in rural areas. Minimum size grant is $1M. Technology pilots and research projects are eligible- “Research, demonstration, or pilot projects are eligible only if they result in long-term, permanent surface transportation infrastructure that has independent utility.”
As a reminder, **INFRA grants** are also available and dynamic signaling or pricing systems and connected vehicle technology are eligible. For a large projects, the INFRA grant must be at least $25 million. For a small project, the grant must be at least $5 million. Proposals are due November 2, 2017

**NTSB Releases Findings on 2016 Tesla Crash**

The National Transportation Safety Board Tuesday ruled that the autopilot on a Tesla Model S vehicle that crashed and killed the driver in 2016 was working as it was supposed to be. However, investigators concluded the autopilot should not have been engaged on that particular road. The accident took place on a divided road in Florida with occasional intersections. Tesla says it had warned owners not to use the device on roads for which they were not designed for. In spite of those warnings, investigators found the car’s software would allow drivers to reach speeds as fast as 90 miles per hour, using automated steering.

The NTSB recommended that all automakers should prevent drivers from using the autonomous driving systems on roads for which they are not designed.

"In this crash, Tesla’s system worked as designed," NTSB Chairman Robert Sumwalt said. "But it was designed to perform limited tasks in a limited range of environments. The system gave far too much leeway to the driver to divert his attention to something other than driving." Sumwalt added using the autopilot at that time played a “major role” in the accident.

The NTSB says there are limits on the autopilot system, including Tesla’s inability to monitor and ensure the driver’s attention, even as the vehicle is being driven at high speeds.

Former Navy SEAL Joshua Brown died after his Model S struck a truck crossing the road in front of him. Investigators say the car showed no signs that Brown tried to brake or evade the truck as he drove at 74 miles an hour, which led investigators to conclude the autopilot was on and the car was driving itself.
This is the first investigation conducted by the NTSB on autonomous driving technology.

**Legislative News**

**Senate Commerce Committee Releases Staff Draft of AV Legislation**

The U.S. Senate Committee on Commerce, Science, and Transportation released on September 8, 2017, a staff discussion draft of self-driving vehicle legislation entitled “American Vision for Safer Transportation through Advancement of Revolutionary Technologies Act” or “AV START Act.” According to Committee staff, the staff discussion draft reflects the work of Senate Committee on Commerce, Science, and Transportation Chairman John Thune (R-SD) and Senator Gary Peters (D-MI), with input from Senator Bill Nelson (D-FL).

The staff discussion draft reaffirms the National Highway Traffic Safety Administration’s (NHTSA) authority over the design and construction of highly automated vehicles (SAE J3016 Level 3, 4, or 5 automated driving system) by requiring manufacturers of highly automated vehicles to submit to the Secretary of Transportation a Safety Evaluation Report (SER). A state or local government may not enact or enforce a law or regulation relating to any of the SER areas (see below). The SER areas include system safety, data recording, cybersecurity, human-machine interface, crashworthiness, capabilities, post-crash behavior, compliance with applicable laws, automation function, and certification of inapplicable categories. The Secretary of Transportation may not condition the “manufacture, testing, sale, offer for sale or introduction” into interstate commerce of a highly automated vehicle based on review of the SER.

The staff discussion draft expands the number of Federal Motor Vehicle Safety Standard (FMVSS) exemptions for highly automated vehicle systems that NHTSA can grant from 2,500 to 50,000 vehicles in the first year, 75,000 vehicles in the second year, and 100,000 vehicles for any 12-month period following the second year. A manufacturer of a highly automated vehicle may petition the Secretary of Transportation to expand the exemption
to more than 100,000 vehicles in any 12-month period after the exemption has been in place for 5 years.

The staff discussion draft requires not later than 180 days after the enactment of the Act, the Director of the John A. Volpe National Transportation Systems Center to prepare and submit to the Secretary of Transportation a report that identifies highly automated vehicle conflicts with current FMVSS.

It establishes a Highly Automated Vehicle Technical Safety Committee that will study system safety, automated steering and braking, crashworthiness, event data recording, accessibility, and potential conflicts with existing FMVSS and provide recommendations on performance standards and harmonization of national highly automated vehicle safety standards.

The staff discussion draft requires manufacturers of highly automated vehicle systems to develop a cybersecurity plan and directs the Secretary of Transportation, in coordination with relevant State and law enforcement entities, to research the traffic safety implications of highly automated vehicles.

Some key provisions are under ongoing consideration, such as including or excluding trucks, on which the Committee on Commerce, Science, and Transportation will convene a hearing titled “Transportation Innovation: Automated Trucks and our Nation’s Highways” on Wednesday, September 13, 2017. The hearing will examine the benefits of automated truck safety technology as well as the potential impacts on jobs and the economy.

**Senate AV Discussion Draft Safety Evaluation Report Areas**

**System Safety**—The avoidance of unreasonable risks to safety, including assurance that systems, including hardware and software, perform intended functions; the mitigation of unreasonable risk of hazards caused by a malfunction of the automated driving system; and sense of objects, motorcyclists, bicyclists, and pedestrians in or crossing the path of travel through the automated driving system.
**Data Recording**—The collection by the vehicle of automated driving system performance information and incident and crash data to record the occurrence of malfunctions, disengagements, degradations, or failures; to establish the cause of any such issues; to enable efforts to work with other entities to address data recording and sharing; and with respect to event data recorder information, that complies with the collection and sharing requirements under the FAST Act.

**Cybersecurity**—The minimization of cybersecurity risks to safety and the exchange of information about any vulnerabilities discovered from field incidents, internal testing, or external security research.

**Human-Machine Interface**—The methods of informing the human driver or operator about whether the automated driving system is functioning properly for a Level 3 vehicle, the methods to address driver engagement. The accommodation of people with disabilities through visual, auditory, or haptic displays, or other methods.

**Crashworthiness**—Practicable protection for all occupants given any planned seating positions or interior configurations.

**Capabilities**—The capabilities and limitations of the highly automated vehicle or automated driving system.

**Post-Crash Behavior**—The post-crash behavior of the highly automated vehicle if sensors or critical systems are damaged in a crash.

**Compliance with Applicable Laws**—The capability of the highly automated vehicle to comply with applicable traffic laws and rules of the road.

**Automation Function**—The expected operational design domain in which the highly automated vehicle is designed to operate. The automated driving system's expected object and event detection and response capabilities, including behavioral competencies and crash avoidance capability. The ability of the highly automated vehicle to transition to a minimal risk condition when a malfunction is encountered. The safety of the vehicle while in operation through the manufacturer's
development and implementation of tests, including simulation, test track, and on-road testing.

**Certification of Inapplicable Categories**—A manufacturer that is solely testing a vehicle or system may certify that 1 or more of the categories set forth in paragraphs (1) through (9) do not apply.

**Recapping the House SELF-DRIVE Act**


Here is a recap of the key provisions in the bill:

**Preemption**—Federal government has authority for design, construction, or performance of highly automated vehicles (HAVs), automated driving systems, or components of automated driving systems. States/locals have authority over registration, licensing, driving education and training, insurance, law enforcement, crash investigations, safety and emissions inspections, congestion management of vehicles on the street unless the law or regulation is an unreasonable restriction on the design, construction, or performance of HAVs, automated driving systems, or components of automated driving systems. The bill does not provide a definition for “unreasonable restriction.”

**Safety Assessment Certifications**—Bill requires manufacturers to submit safety assessment certifications, but the Secretary of Transportation (DOT) is not allowed to condition testing or deployment of HAVs based on the review of safety assessment certifications.

**Cybersecurity**—Within 180 days, a manufacturer may not sell, offer for sale, introduce or deliver for introduction into commerce, or import into the U.S., and HAV or vehicle that performs partial driving automation, or automated driving system unless such a manufacturer has developed a cybersecurity plan.

**Exemptions**—Expands the number of Federal Motor Vehicle Safety Standard (FMVSS) exemptions for HAV
systems that NHTSA can grant under the Safety Act from 2,500 to 25,000 vehicles in the first year, 50,000 in their second year, and 100,000 in their third and fourth years. Duration of FMVSS exemptions from 2 years to 4 years.

**Highly Automated Vehicle Advisory Council**—Not later than six months after enactment, requires the DOT to establish in NHTSA a "Highly Automated Vehicle Advisory Council."

**Privacy Plan**—Requires manufacturers to develop a privacy plan before they sell, offer for sale, introduce or deliver for introduction in interstate commerce, or import into the U.S., any HAV, vehicle that performs partial driving automation, or automated driving system.

**State and Local Policy Developments**

*ITS America to Participate in Virginia Smart Communities Working Group*

On September 18, 2017, the Commonwealth of Virginia Smart Communities Working Group will hold its first meeting which also is expected to feature remarks from Governor Terry McAuliffe. At the invitation of Virginia Secretary of Technology Karen Jackson, Jason Goldman--ITS America Vice President for External Affairs and Stakeholder Engagement—will participate in the working group. In preparation for the meeting, participants have been advised to review the five recently released NIST Global City Teams Challenge SuperCluster blueprints (Transportation, Public Safety, Utility, City data platform/dashboard and public WiFi/Broadband). The Working Group was established last month by Gov. McAuliffe who issued an Executive Directive directing the Virginia Secretary of Technology to bring public and private sector experts together to make recommendations on how to make Virginia the national leader in smart communities.

**Communications**

*ITS America’s Interim President and CEO*  
David St. Amant is Guest on Sirius/XM
ITS America’s Interim President and CEO David St. Amant was a guest from 2 p.m. to 3 p.m. eastern time, Tuesday September 12th on Sirius/XM’s Road Dog Trucking News, Channel 146 and host Mark Willis. David took questions about the upcoming ITS World Congress in Montreal, the recent moves in Washington, D.C. concerning autonomous vehicles, and how technology will make our roads and highways safer.

He also addressed concerns that some over-the-road truck drivers have about fears of future potential job losses and labor disruptions. Dave compared the future of autonomous trucks to that of a commercial jetliner that is flown most of the time on autopilot. Two licensed airline pilots are always in the cockpit even though the flight management system is operating the aircraft. He said autonomous technology will make trucks safer for truck drivers and those in other vehicles on the roads and highways, and it will also improve a driver’s productivity.

The full interview with Dave will be available on our website itsamerica.org and in next week’s Policy Rundown and Member Buzz.

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