**Motor Carrier Safety Advisory Committee (MCSAC)**

**Task Statement 17-1: Highly Automated Commercial Vehicles (HACV)**

**I. Task Title**

Provide recommendations to the Agency concerning the issues the Agency should consider to ensure that the appropriate safety standards are observed for HACVs from design and development through testing and deployment. Additionally, the MCSAC should identify data needs that the Agency should consider in developing the framework for a potential pilot program on HACVs.

**II. Background**

Highly automated commercial vehicles are those in which the vehicle can take full control of the driving tasks in at least some circumstances. HACVs hold enormous potential benefits for safety, mobility, and sustainability. Public discussions regarding HACVs have become more prominent in recent months as developers continue efforts to demonstrate the viability of advanced driver assistance systems on large commercial vehicles. FMCSA encourages the development of these advanced safety technologies for use on commercial vehicles and recognizes the need to ensure that testing and operation of these advanced safety systems is conducted in a manner that ensures the highest level of safety for everyone involved, especially the motoring public.

Sections 390.17 and 393.3 of the Federal Motor Carrier Safety Regulations (FMCSRs, 49 CFR parts 350-399) permit the use of additional equipment and accessories on CMVs beyond those which are minimally required by the regulations, if such equipment and accessories do not decrease the safety of operation of the CMVs on which they are used. While advanced driver assistance systems such as automatic emergency braking, lane departure warning, forward collision warning, and others are not required to be used on CMVs, the use of such systems is permitted, provided that they do not impair the effectiveness of the required safety systems.

**III. Task**

The Agency requests that the MCSAC provide recommendations concerning the issues FMCSA should consider to ensure that the Federal safety regulations provide appropriate standards for the safe operation of HACVs from design and development through testing and deployment. Specifically, the MCSAC would consider the application of the following regulatory provisions in title 49 CFR to HACV operations. These are the following: 1) part 383, Commercial Driver’s Licenses; 2) part 391, Qualifications of Drivers; 3) sections 392.80 and 392.82, use of electronic devices; 4) part 395, Hours of Service of Drivers; and 5) part 396, Inspection, Repair, and Maintenance.

Because the FMCSRs include certain requirements that could be considered an obstacle to the on-road testing of HACVs, the operation of some HACVs on a public roadway without a person in the driver seat may occur only after some form of regulatory relief has been granted by FMCSA.

FMCSA tasks the MCSAC with providing recommendations regarding prospective requirements for manufacturers or other entities requesting a pilot program and/or a temporary exemption to operate an HACV without a person in the driver’s seat on a public roadway. We ask the MCSAC to identify data needs that the Agency should consider in developing the framework for a potential pilot program that would ensure an equivalent level of safety for HACVs as compared to having a driver operating the vehicle in the same operational design domain.

A pilot program is a formal project established by FMCSA in accordance with 49 CFR part 381 to test the effectiveness of certain safety strategies or technologies, using a group of carriers and/or drivers. A pilot program includes relief from specified regulations during the life of the pilot program, up to 3 years, to allow testing of alternatives. The safety measures in the pilot program must be designed to achieve a level of safety that is equivalent to or greater than the level of safety that would be obtained by complying with the regulations.

An exemption is temporary relief from one or more provisions of the FMCSRs granted to a person or class of persons subject to the regulations, or who intend to engage in an activity that would make them subject to the regulations. An exemption may be granted for up to 5 years and is renewable. The exemption application must explain how the entity would achieve a level of safety that is equivalent to or greater than the level of safety that would be obtained by complying with the regulation.

Part 381 includes formal requirements for a pilot program and for temporary exemptions.

As MCSAC meetings are open to the public, the Committee should consider any information identified by individuals making remarks during the meeting.

**IV. Estimated Time to Complete Task**

The MCSAC should begin developing their recommendations to the Agency on Task 17-1 at the June 2017 meeting and submit a letter report to the Administrator following the fall 2017 meeting.

**V. FMCSA Technical Representatives**

* Amina Fisher, Mechanical Engineer, Vehicle and Roadside Operations Division Amina.Fisher@dot.gov
* Luke Loy, Mechanical Engineer, Vehicle and Roadside Operations Division

Luke.Loy@dot.gov

* Brian Routhier, Transportation Specialist, Office of Technology

Brian.Routhier@dot.gov