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Technical Report: Management Practices for the Safe Operation of Partially and Fully Automated Motor Vehicles

A Technical Report prepared by ASSP and registered with ANSI



AMERICAN SOCIETY OF SAFETY PROFESSIONALS

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ASSP Technical Report

Management Practices for the Safe Operation of Partially and Fully Automated Motor Vehicles

A Technical Report prepared by the American Society of Safety Professionals

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Foreword

Year after year, motor vehicle crashes are the No. 1 cause of on-the-job fatalities in the United States, according to the Bureau of Labor Statistics. More than a thousand workers a year lose their lives, and many thousands more are injured. Each and every one of these tragedies is preventable.

Technology offers a long-term solution to change this sobering narrative and eliminate motor vehicle fatalities on and off the job. The deployment of partially and fully automated motor vehicles is expected to lead to significant benefits, including potential reduction in motor vehicle collisions. Fully automated vehicles are not yet commercially available but could be on the road within a decade. Organizations need information about how to select and manage vehicles available today that are equipped with advanced driver assistance systems and some level of automation. In addition, organizations must plan for changes in fleet management practices when highly automated vehicles become commercially available.

Organizational practices can reduce deaths, injuries and costs associated with motor vehicle collisions. This report applies to individuals in all roles: high-level managers or executives, fleet managers, risk managers, safety managers and drivers. This report also will be of interest to: (1) legislators and government officials charged with setting and carrying out safety policy; (2) law enforcement officers and organizations investigating collisions; (3) insurers; (4) manufacturers of vehicles and automated systems; (5) motor vehicle safety researchers; and (6) safety advocates.

One final note: This report should not be seen as the only resource to help organizations manage partially and fully automated fleet vehicles. Other groups with resources on this topic are included in the References.

This document is registered as a Technical Report in the Z15 series of publications according to the "Procedures for the Registration of ANSI Technical Reports" and the ANSI/ASSP "Safety Operating Procedures.".

This technical report was processed and approved for submittal to ANSI by the Z15 American National Standards Committee. Approval of the technical report does not necessarily imply (nor is it required) that all members voted for its approval. At the time ANSI registered this technical report, the Z15 Committee had the following members:

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ASSP TECHNICAL REPORT TR-Z15.3 MANAGEMENT PRACTICES FOR THE SAFE OPERATION OF PARTIALLY AND FULLY AUTOMATED MOTOR VEHICLES

1. Scope, Purpose and Application, Exceptions and Interpretations

1.1 Scope

This technical report describes practices for the safe management and operation of partially and fully automated motor vehicles (Levels 1-5, as defined in SAE J3016) that are (a) owned or operated by organizations in the private, public and non-governmental sectors and (b) used for organizational business. It supplements ANSI/ASSP Z15.1, *Safe Practices for Motor Vehicle Operations*, which is a comprehensive fleet safety management standard.

1.2 Purpose and Application

This report is intended to help organizations develop policies, procedures and management processes to control risks associated with the operation of partially and fully automated motor vehicles. The guidance pertains to management and administration, acquisition, maintenance and repair, incident reporting and analysis and management of data pertaining to those motor vehicles. This report does not serve as a mandate for individuals or organizations.

This report covers all partially and fully automated licensed motor vehicles designed to be operated primarily on public roads. It applies to the operation of (1) vehicles owned or leased by the organization, whether the motor vehicle is being driven on organizational business or for personal use; and (2) rental or driver-owned motor vehicles used for organizational business. It applies to anyone working on behalf of the organization whose job requires the use of a motor vehicle, or whose job involves fleet safety management, vehicle procurement or maintenance.

1.3 Exceptions

This report does not apply to unlicensed equipment or off-road recreational motor vehicles. Examples of motor vehicles and equipment excluded include:

- agricultural equipment
- all-terrain motor vehicles
- haulage trucks operated solely on industrial or mine sites
- road construction equipment
- snowmobiles
- golf carts

Licensed motor vehicles designed primarily for use on public roads may be operated off the road. This report does apply to off-road use of these motor vehicles.

1.4 Interpretations

Requests for interpretations of this document shall be put in writing and addressed to the Secretariat of this report.