

APPENDIX A

GLOSSARY

Acronym	Term		
ATA	American Trucking Associations	GPS	Global Positioning System
AusTA	Australian Trucking Association	HOS	Hours-of-service
BAC	Blood alcohol content	LTCCS	Large Truck Crash Causation Study
BBS	Behavior-based safety	LTL	Less-than truckload
BSM	Behavioral safety management	NHTSA	National Highway Traffic Safety Administration
CDL	Commercial drivers license	NPTC	National Private Truck Council
CMV	Commercial motor vehicle	NTSB	National Transportation Safety Board
CTBSSP	Commercial Truck and Bus Safety Synthesis Program	OBSM	On-board safety monitoring
CVO	Commercial vehicle operations	OMC	Office of Motor Carriers [predecessor agency to FMCSA]
FHWA	Federal Highway Administration	TRB	Transportation Research Board
FMCSA	Federal Motor Carrier Safety Administration	UM	University of Maryland
FMCSRs	Federal Motor Carrier Safety Regulations	VTTI	Virginia Tech Transportation Institute

APPENDIX B

PROJECT STATEMENT OF WORK

Effective Commercial Truck and Bus Safety Management Techniques

A rich literature exists regarding military and industrial safety management practices. In the U.S. military, these practices have been formalized as various military standards. In industry, there is a major discipline called “system safety.” Unfortunately, such an extensive body of literature does not exist relating to the management of commercial truck and bus operations and drivers, even though commercial truck and bus driving is an extremely hazardous U.S. occupation. More than 5,000 fatalities occur annually in commercial truck and bus crashes, including more than 700 commercial driver fatalities. Per-vehicle crash costs for tractor-trailers and buses are more than four times those of other vehicle types.

Effective safety management involves a number of diverse practices ranging from equipment management (e.g., preventive maintenance) to driver safety incentive programs. There is a need to examine the full range of approaches possible and describe best practices based on available knowledge. The U.S. DOT Federal Motor Carrier Safety Administration’s Research & Technology Program includes a focus area on “Carrier Compliance and Safety.” This focus area would benefit from a systematic and comprehensive review of the literature and best practice relating to commercial truck and bus safety management.

This synthesis would describe techniques for commercial truck and bus safety management. The synthesis would summarize various safety management approaches and practices applicable to the management of commercial vehicle drivers, trucks, and buses, and would generate hypotheses for new research on commercial truck and bus fleet safety management practices. In addition to summarizing the safety management approaches and practices, the synthesis should include discrete sections on responding to obstructive sleep disorders (e.g., sleep apnea) in safety management; and best practices to ensure the selection of safe, alert, and well-trained commercial truck and bus drivers, including approaches for dealing with drivers with limited English proficiency.

The synthesis should be based on a comprehensive literature review of relevant material, and surveys of and/or interviews with the Federal Motor Carrier Safety Administration, American Trucking Associations Foundation, American Bus Association, Motor Freight Carriers Association, commercial truck and bus carriers with exemplary safety records, insurers of motor carriers, and commercial drivers through contact with organized labor (e.g., International Brotherhood of Teamsters, Amalgamated Transit Union, and United Transportation Union) and the Owner Operator Independent Drivers Association. The hazardous materials-carrying segment of the commercial trucking industry and the scheduled service segment of the passenger bus industry may also be excellent sources of information since crash rates in these segments are known to be generally low. In addition, appropriate DOD agencies may be a relevant source of information.

NOTE: Two years ago the National Industrial Transportation League (NITL) was working on a best practices manual in this subject area for the trucking industry. This manual should be reviewed as an information source for this synthesis.