

Driver-trainees must demonstrate the ability to recognize potential dangers and to demonstrate appropriate safety procedures when RR-highway grade crossings are reasonably available.

Unit A3.10 Night Operation

Driver-trainees must be familiar with how to operate a CMV safely at night. Training providers must teach driver-trainees that night driving presents specific circumstances that require heightened attention on the part of the driver. Driver-trainees must be taught special requirements for night vision, communications, speed, space management, and proper use of lights.

Unit A3.11 Extreme Driving Conditions

Driver-trainees must be familiar with the special risks created by, and the heightened precautions required by, driving CMVs under extreme driving conditions, such as heavy rain, high wind, high heat, fog, snow, ice, steep grades, and sharp curves. Driver-trainees must demonstrate their ability to recognize the changes in basic driving habits needed to deal with the specific challenges presented by these extreme driving conditions.

Unit A3.12 Skid Control/Recovery, Jackknifing, and Other Emergencies

Driver-trainees must know the causes of skidding and jackknifing and techniques for avoiding and recovering from them. Driver-trainees must know how to maintain directional control and bring the CMV to a stop in the shortest possible distance while operating over a slippery surface. Driver-trainees must be familiar with proper techniques for responding to CMV emergencies, such as evasive steering, emergency braking, and off-road recovery. They must also know how to prevent or respond to brake failures, tire blowouts, hydroplaning, and rollovers.

Theory Instruction Upgrade Curriculum

Section BA1.1 Basic Operation

This section must cover the interaction between driver-trainees and the CMV. Driver-trainees will receive instruction in the Federal Motor Carrier Safety Regulations (FMCSRs) and will be introduced to the basic CMV instruments and controls. Training providers will teach driver-trainees the basic operating characteristics of a CMV. This section must also teach driver-trainees how to properly perform vehicle inspections, control the motion of CMVs under various road and traffic conditions, employ shifting and backing techniques, and properly couple and uncouple combination vehicles. Driver-trainees must familiarize themselves with the basic operating characteristics of a CMV.

Unit BA1.1.1 Orientation

This unit must introduce driver-trainees to the combination vehicle driver training curriculum and the components of a combination vehicle. The training providers must teach the safety fundamentals, essential regulatory requirements (e.g., overview of FMCSRs and Hazardous Materials Regulations), and driver-trainees' responsibilities not directly related to CMV driving, such as proper cargo securement. This unit must also cover the ramifications, including driver disqualification provisions and fines, for non-compliance with parts 380, 382, 383, and 390 through 399 of the FMCSRs. This unit must also include an overview of the applicability of State and local laws relating to the safe operation of the CMV, stopping at weigh stations/scales, hazard awareness of vehicle size and weight limitations, low clearance areas (e.g., CMV height restrictions), and bridge formulas.

Unit BA1.1.2 Control Systems/Dashboard

This unit must introduce driver-trainees to vehicle instruments, controls, and safety components. The training providers must teach driver-trainees to read gauges and instruments correctly and the proper use of vehicle safety components, including safety belts and mirrors. The training providers must teach driver-trainees to identify, locate, and explain the function of each of the primary and secondary controls including those required for steering, accelerating, shifting, braking systems (e.g., ABS, hydraulic, air), as applicable, and parking.

Unit BA1.1.3 Pre- and Post-Trip Inspections

This unit must teach the driver-trainees to conduct pre-trip and post-trip inspections as specified in §§ 392.7 and 396.11, including appropriate inspection locations. Instruction must also be provided on en route vehicle inspections.

Unit BA1.1.4 Basic Control

This unit must introduce basic vehicular control and handling as it applies to combination vehicles. This unit must include instruction addressing basic combination vehicle controls in areas such as executing sharp left and right turns, centering the vehicle, maneuvering in restricted areas, and entering and exiting the interstate or controlled access highway.

Unit BA1.1.5 Shifting/Operating Transmissions

This unit must introduce shifting patterns and procedures to driver-trainees to prepare them to safely and competently perform basic shifting maneuvers. This unit must include training driver-trainees to execute up and down shifting techniques on multi-speed dual range transmissions, if appropriate. The training providers must teach the importance of increased vehicle control and improved fuel economy achieved by utilizing proper shifting techniques.

Unit BA1.1.6 Backing and Docking

This unit must teach driver-trainees to back and dock the combination vehicle safely. This unit must cover "Get Out and Look" (GOAL), evaluation of backing/loading facilities, knowledge of backing set ups, as well as instruction in how to back with the use of spotters.

Unit BA1.1.7 Coupling and Uncoupling

This unit must provide instruction for driver-trainees to develop the skills necessary to conduct the procedures for safe coupling and uncoupling of combination vehicle units, as applicable.

Section BA1.2 Safe Operating Procedures

This section must teach the practices required for safe operation of the combination vehicle on the highway under various road, weather, and traffic conditions. The training providers must teach driver-trainees the Federal rules governing the proper use of seat belt assemblies (§ 392.16).

Unit BA1.2.1 Visual Search

This unit must teach driver-trainees to visually search the road for potential hazards and critical objects, including instruction on recognizing distracted pedestrians or distracted drivers.

Unit BA1.2.2 Communication

This unit must instruct driver-trainees on how to communicate their intentions to other road users. Driver-trainees must be instructed in techniques for different types of communication on the road, including proper use of headlights, turn signals, four-way flashers, and horns. This unit must cover instruction in proper utilization of eye contact techniques with other drivers, bicyclists, and pedestrians.

Unit BA1.2.3 Distracted Driving

This unit must instruct driver-trainees in FMCSRs related to distracted driving and other key driver distraction driving issues, including improper cell phone use, texting, and use of in-cab technology (e.g., §§ 392.80 and 392.82). This instruction will include training in the following aspects: visual attention (keeping eyes on the road); manual control (keeping hands on the wheel); and cognitive awareness (keeping mind on the task and safe operation of the CMV).

Unit BA1.2.4 Speed Management

This unit must teach driver-trainees how to manage speed effectively in response to various road, weather, and traffic conditions. The instruction must include methods for calibrating safe following distances taking into account CMV braking distances under an array of conditions including traffic, weather, and CMV weight and length.

Unit BA1.2.5 Space Management

This unit must teach driver-trainees about the importance of managing the space surrounding the vehicle under various traffic and road conditions.

Unit BA1.2.6 Night Operation

This unit must instruct driver-trainees in the factors affecting the safe operation of CMVs at night and in darkness. Additionally, driver-trainees must be instructed in changes in vision, communications, speed space management, and proper use of lights, as needed, to deal with the special problems night driving presents.

Unit BA1.2.7 Extreme Driving Conditions

This unit must teach driver-trainees about the specific problems presented by extreme driving conditions. The training provider will emphasize the factors affecting the operation of CMVs in cold, hot, and inclement weather and on steep grades and sharp curves. The training provider must teach proper tire chaining procedures.

Section BA1.3 Advanced Operating Practices

This section must introduce higher-level skills that can be acquired only after the more fundamental skills and knowledge taught in the prior two sections have been mastered. The training providers must teach driver-trainees about the advanced skills necessary to recognize potential hazards and must teach the driver-trainees the procedures needed to handle a CMV when faced with a hazard.

Unit BA1.3.1 Hazard Perception

The unit must teach driver-trainees to recognize potential hazards in the driving environment in order to reduce the severity of the hazard and neutralize possible emergency situations. The training providers must teach driver-trainees to identify road conditions and other road users that are a potential threat to the safety of the combination vehicle and suggest appropriate adjustments. The instruction must emphasize hazard recognition, visual search, adequate surveillance, and response to possible emergency-producing situations encountered by CMV drivers in various traffic situations. The training providers must teach driver-trainees to recognize potential dangers and the safety procedures that must be utilized while driving in construction/work zones.

Unit BA1.3.2 Skid Control/Recovery, Jackknifing, and Other Emergencies

This unit must teach the causes of skidding and jackknifing and techniques for avoiding and recovering from them. The training providers must teach the importance of maintaining directional control and bringing the CMV to a stop in the shortest possible distance while operating over a slippery surface. This unit must provide instruction in appropriate responses when faced with CMV emergencies. This instruction must include evasive steering, emergency braking, and off-road recovery, as well as the proper response to brake failures, tire blowouts, hydroplaning, and rollovers. The instruction must include a review of unsafe acts and the role the acts play in producing or worsening hazardous situations.

Unit BA1.3.3 Railroad-Highway Grade Crossings

This unit must teach driver-trainees to recognize potential dangers and the appropriate safety procedures to utilize at railroad (RR)-highway grade crossings. This instruction must include an overview of various Federal/State RR grade crossing regulations, RR grade crossing environments, obstructed view conditions, clearance around the tracks, and rail signs and signals. The training providers must instruct driver-trainees that railroads have personnel available ("Emergency Notification Systems") to receive notification of any information relating to an unsafe condition at the RR-highway grade crossing or a disabled vehicle or other obstruction blocking a railroad track at the RR-highway grade crossing.

Section BA1.4 Vehicle Systems and Reporting Malfunctions

This section must provide entry-level driver-trainees with sufficient knowledge of the combination vehicle and its systems and subsystems to ensure that they understand and respect their role in vehicle inspection, operation, and maintenance and the impact of those factors upon highway safety and operational efficiency.

Unit BA1.4.1 Identification and Diagnosis of Malfunctions

This unit must teach driver-trainees to identify major combination vehicle systems. The goal is to explain their function and how to check all key vehicle systems, (e.g., engine, engine exhaust auxiliary systems, brakes, drive train, coupling systems, and suspension) to ensure their safe operation. Driver-trainees must be provided with a detailed description of each system, its importance to safe and efficient operation, and what is needed to keep the system in good operating condition.

Unit BA1.4.2 Roadside Inspections

This unit must instruct driver-trainees on what to expect during a standard roadside inspection conducted by authorized personnel. The training providers must teach driver-trainees on what vehicle and driver violations are classified as out-of-service (OOS), including the ramifications and penalties for operating a CMV when subject to an OOS order as defined in section 390.5.

Unit BA1.4.3 Maintenance

This unit must introduce driver-trainees to the basic servicing and checking procedures for various engine and vehicle components and to help develop their ability to perform preventive maintenance and simple emergency repairs.

Section BA1.5 Non-Driving Activities

This section must teach driver-trainees the activities that do not involve actually operating the CMV.

Unit BA1.5.1 Hours of Service Requirements

This unit must teach driver-trainees to understand that there are different hours-of-service (HOS) requirements applicable to different industries. The training providers must teach driver-trainees all applicable HOS regulatory requirements. The training providers must teach driver-trainees to complete a Driver's Daily Log (electronic and paper), timesheet, and logbook recap, as appropriate. The training providers must teach driver-trainees the consequences (safety, legal, and personal) of violating the HOS regulations, including the fines and penalties imposed for these types of violations.

Unit BA1.5.2 Fatigue and Wellness Awareness

This unit must teach driver-trainees about the issues and consequences of chronic and acute driver fatigue and the importance of staying alert. The training providers must teach driver-trainees wellness and basic health maintenance information that affect a driver's ability to safely operate a CMV.

[81 FR 88794, Dec. 8, 2016, as amended at 83 FR 22875, May 17, 2018; 84 FR 8040, Mar. 6, 2019]

Pt. 380, App. B

Appendix B to Part 380—Class B—CDL Training Curriculum

Class B CDL applicants must complete the Class B CDL curriculum outlined in this Appendix. The curriculum for Class B applicants pertains to heavy straight vehicles (Group B) as defined in 49 CFR 383.91(a)(2). There is no required minimum number of instruction hours for theory training, but the training instructor must cover all the topics in curriculum. There is no required minimum number of instruction hours required for BTW (range and public road) training, but the training instructor must cover all topics set forth in the BTW curriculum. BTW training must be conducted in a CMV for which a Class B CDL is required. The instructor must determine and document that each driver-trainee has demonstrated proficiency in all elements of the BTW curriculum unless otherwise noted. Consistent with the definitions of BTW range training and BTW public road training in § 380.605, a simulation device cannot be used to conduct such training or to demonstrate proficiency. Training instructors must document the total number of clock hours each driver-trainee spends to complete the BTW curriculum. The Class B curriculum must, at a minimum, include the following:

Theory Instruction

Section B1.1 Basic Operation

This section must cover the interaction between driver-trainees and the CMV. Driver-trainees will receive instruction in the Federal Motor Carrier Safety Regulations (FMCSRs) and will be introduced to the basic CMV instruments and controls. This section must also teach driver-trainees how to perform vehicle inspections, control the CMVs under various road and traffic conditions, employ shifting and backing techniques, and couple and uncouple, as applicable. Driver-trainees must familiarize themselves with the basic operating characteristics of a CMV.

Unit B1.1.1 Orientation

This unit must introduce driver-trainees to the commercial motor vehicle driver training curriculum and the components of a commercial motor vehicle. The training providers must teach driver-trainees the safety fundamentals, essential regulatory requirements (*i.e.*, overview of FMCSRs/hazardous materials (HM) regulations), and driver-trainees' responsibilities not directly related to driving. This unit must also cover the ramifications and driver disqualification provisions and fines for non-compliance with parts 380, 382, 383, and 390 through 399 of the FMCSRs. This unit must also include an overview of the applicability of State and local laws relating to the safe operation of the CMV, stopping at weigh stations/scales, hazard awareness of vehicle size and weight limitations, low clearance areas (e.g., CMV height restrictions), and bridge formulas.

Unit B1.1.2 Control Systems/Dashboard

This unit must introduce driver-trainees to vehicle instruments, controls, and safety components. The training providers must teach driver-trainees to read gauges and instruments correctly and the proper use of vehicle safety components, including safety belts and mirrors. The training providers must teach driver-trainees to identify, locate, and explain the function of each of the primary and secondary controls including those required for steering, accelerating, shifting, braking systems (e.g., ABS, hydraulic, air), as applicable, and parking.

Unit B1.1.3 Pre- and Post-Trip Inspections

The training provider must teach the driver-trainees to conduct pre-trip and post-trip inspections as specified in §§ 392.7 and 396.11, including appropriate inspection locations. Instruction must also be provided on enroute vehicle inspections.

Unit B1.1.4 Basic Control

This unit must introduce basic vehicular control and handling as it applies to commercial motor vehicles. This unit must include instruction addressing basic CMV controls in areas such as executing sharp left and right turns, centering the vehicle, maneuvering in restricted areas, and entering and exiting the interstate or controlled access highway.

Unit B1.1.5 Shifting/Operating Transmissions

This unit must introduce shifting patterns and procedures to driver-trainees to prepare them to safely and competently perform basic shifting maneuvers. This unit must teach driver-trainees to execute up and down shifting techniques on multi-speed dual range transmissions, if appropriate. The training providers must teach driver-trainees the importance of increased fuel economy achieved by utilizing proper shifting techniques.

Unit B1.1.6 Backing and Docking

This unit must teach driver-trainees to back and dock the combination vehicle safely. This unit must cover "Get Out and Look" (GOAL), evaluation of backing/loading facilities, knowledge of backing set ups, as well as instruction in how to back with use of spotters.

Section B1.2 Safe Operating Procedures

This section must teach the practices required for safe operation of the CMV on the highway under various road, weather, and traffic conditions. The training providers must teach driver-trainees the Federal rules governing the proper use of seat belt assemblies (§ 392.16).

Unit B1.2.1 Visual Search

This unit must teach driver-trainees to visually search the road for potential hazards and critical objects, including instruction on recognizing distracted pedestrians or distracted drivers. This unit must include instruction in how to ensure a driver-trainee's personal security/general awareness in common surroundings such as truck stops and/or rest areas and at shipper/receiver locations.

Unit B1.2.2 Communication

This unit must teach driver-trainees how to communicate their intentions to other road users. Driver-trainees must be instructed in techniques for different types of communication on the road, including proper use of headlights, turn signals, four-way flashers, and horns. This unit must cover instruction in proper utilization of eye contact techniques with other drivers, bicyclists, and pedestrians.

Unit B1.2.3 Distracted Driving

This unit must instruct driver-trainees in FMCSRs related to distracted driving and other key driver distraction driving issues, including improper cell phone use, texting, and use of in-cab technology (e.g., §§ 392.80 and 392.82). This instruction will include training in the following aspects: Visual attention (keeping eyes on the road); manual control (keeping hands on the wheel); and cognitive awareness (keeping mind on the task and safe operation of the CMV).

Unit B1.2.4 Speed Management

This unit must teach driver-trainees how to manage speed effectively in response to various road, weather, and traffic conditions. The instruction must include methods for calibrating safe following distances under an array of conditions including traffic, weather and CMV weight and length.

Unit B1.2.5 Space Management

This unit must teach driver-trainees about the importance of managing the space surrounding the vehicle under various traffic and road conditions.

Unit B1.2.6 Night Operation

This unit must instruct driver-trainees in the factors affecting the safe operation of CMVs at night and in darkness. Additionally, driver-trainees must be instructed in changes in vision, communications, speed, space management, and proper use of lights, as needed, to deal with the special problems night driving presents.

Unit B1.2.7 Extreme Driving Conditions

This unit must teach driver-trainees the specific problems presented by extreme driving conditions. The training will emphasize the factors affecting the operation of CMVs in cold, hot, and inclement weather and on steep grades and sharp curves. The training providers must teach driver-trainees the proper tire chaining procedures in this unit.

Section B1.3 Advanced Operating Practices

This section must introduce higher-level skills that can be acquired only after the more fundamental skills and knowledge taught in the prior two sections have been mastered. The training providers must teach driver-trainees the advanced skills necessary to recognize potential hazards and must teach driver-trainees the procedures needed to handle a CMV when faced with a hazard.

Unit B1.3.1 Hazard Perception

The unit must provide instruction for recognizing potential hazards in the driving environment in order to reduce the severity of the hazard and neutralize possible emergency situations. The training providers must teach driver-trainees to identify road conditions and other road users that are a potential threat to the safety of the CMV and suggest appropriate adjustments. The instruction must emphasize hazard recognition, visual search, adequate surveillance, and response to possible emergency-producing situations encountered by CMV drivers in various traffic situations. The training providers must also teach driver-trainees to recognize potential dangers and the safety procedures that must be utilized while driving in construction/work zones.

Unit B1.3.2 Skid Control/Recovery, Jackknifing, and Other Emergencies

This unit must teach the causes of skidding and jackknifing and techniques for avoiding and recovering from them. The training providers must teach the importance of maintaining directional control and bringing the CMV to a stop in the shortest possible distance while operating over a slippery surface. This unit must provide instruction in appropriate responses when faced with CMV emergencies. This instruction must include evasive steering, emergency braking, and off-road recovery, as well as the proper response to brake failures, tire blowouts, hydroplaning, and rollovers. The instruction must include a review of unsafe acts and the role the acts play in producing or worsening hazardous situations.

Unit B1.3.3 Railroad-Highway Grade Crossings

This unit must teach driver-trainees to recognize potential dangers and appropriate safety procedures to utilize at railroad (RR)-highway grade crossings. This instruction must include an overview of various Federal/State RR grade crossing regulations, RR grade crossing environments, obstructed view conditions, clearance around the tracks, and rail signs and signals. The training providers must instruct driver-trainees that railroads have personnel available ("Emergency Notification Systems") to receive notification of any information relating to an unsafe condition at the RR-highway grade crossing or a disabled vehicle or other obstruction blocking a railroad track at the RR-highway grade crossing.

Section B1.4 Vehicle Systems and Reporting Malfunctions

This unit must provide entry-level driver-trainees with sufficient knowledge of the CMV and its systems and subsystems to ensure that they understand and respect their role in vehicle inspection, operation, and maintenance and the impact of those factors upon highway safety and operational efficiency.

Unit B1.4.1 Identification and Diagnosis of Malfunctions

This unit must teach driver-trainees to identify major vehicle systems. The goal is to explain their function and how to check all key vehicle systems, as appropriate (e.g., engine, engine exhaust auxiliary systems, brakes, drive train, coupling systems, and suspension) to ensure their safe operation. Driver-trainees must

be provided with a detailed description of each system, its importance to safe and efficient operation, and what is needed to keep the system in good operating condition.

Unit B1.4.2 Roadside Inspections

This unit must instruct driver-trainees on what to expect during a standard roadside inspection conducted by authorized personnel. The training providers must teach driver-trainees on what vehicle and driver violations are classified as out-of-service (OOS), including the ramifications and penalties for operating a CMV when subject to an OOS order as defined in section 390.5.

Unit B1.4.3 Maintenance

This unit must introduce driver-trainees to the basic servicing and checking procedures for various engine and vehicle components and to help develop their ability to perform preventive maintenance and simple emergency repairs.

Section B1.5 Non-Driving Activities

This section must teach driver-trainees activities that do not involve actually operating the CMV, e.g., proper cargo securement.

Unit B1.5.1 Handling and Documenting Cargo

This unit must teach driver-trainees the basic theory of cargo weight distribution, cargo securement on the vehicle, cargo covering, and techniques for safe and efficient loading/unloading. The training providers must also teach driver-trainees the basic cargo security/cargo theft prevention procedures. The training providers must teach driver-trainees the basic information regarding the proper handling and documentation of HM cargo.

Unit B1.5.2 Environmental Compliance Issues

This unit must teach driver-trainees to recognize environmental hazards and issues related to the CMV and load, and also make aware that city, county, State, and Federal requirements may apply to such circumstances.

Unit B1.5.3 Hours of Service Requirements

This unit must teach driver-trainees to understand that there are different hours-of-service (HOS) requirements applicable to different industries. The training providers must teach driver-trainees all applicable HOS regulatory requirements. The training providers must teach driver-trainees to complete a Driver's Daily Log (electronic and paper), timesheet, and logbook recap, as appropriate. The training providers must teach driver-trainees the consequences (safety, legal, and personal) of violating the HOS regulations, including the fines and penalties imposed for these types of violations.

Unit B1.5.4 Fatigue and Wellness Awareness

The issues and consequences of chronic and acute driver fatigue and the importance of staying alert will be covered in this unit. The training providers must teach driver-trainees about wellness and basic health maintenance information that affect a driver's ability to safely operate a CMV.

Unit B1.5.5 Post-Crash Procedures

This unit must teach driver-trainees the appropriate post-crash procedures, including the requirement that the driver, if possible, assess his or her physical condition immediately after the crash and notify authorities, or assign the task to other individuals at the crash scene. The training providers must teach driver-trainees how to protect the area; obtain emergency medical assistance; move on-road vehicles off the road in minor crashes so as to avoid subsequent crashes or injuries; engage flashers; place reflective triangles and other warning devices for stopped vehicles; and properly use a fire extinguisher, if necessary. The training providers must instruct driver-trainees in post-crash testing requirements related to controlled substances and alcohol.

Unit B1.5.6 External Communications

This unit must instruct driver-trainees in the value of effective interpersonal communication techniques/skills to interact with enforcement officials. The training providers must teach driver-trainees the specifics of the roadside vehicle inspection process, and what to expect during this activity. Driver-trainees who are not native English speakers must be instructed in FMCSA English language proficiency requirements and the consequences for violations. The training providers must teach driver-trainees the implications of violating Federal and state regulations will have on their driving records and their employing motor carrier's records.

Unit B1.5.7 Whistleblower/Coercion

This unit must teach the driver-trainees about the right of an employee to question the safety practices of an employer without incurring the risk of losing a job or being subject to reprisals simply for stating a safety concern. The training providers must instruct driver-trainees in the whistleblower protection regulations in 29 CFR part 1978. The training providers must teach driver-trainees the procedures for reporting to FMCSA incidents of coercion from motor carriers, shippers, receivers, or transportation intermediaries.

Unit B1.5.8 Trip Planning

This unit must address the importance of and requirements for planning routes and trips. This instruction must address planning the safest route, planning for rest stops, heavy traffic areas, railroad-highway grade crossing safe clearance and ground clearance (*i.e.*, "high center"), the importance of Federal and State requirements on the need for permits, and vehicle size and weight limitations. The training providers must teach driver-trainees the correct identification of restricted routes, the pros and cons of Global Positioning System (GPS)/trip routing software, and the importance of selecting fuel-efficient routes.

Unit B1.5.9 Drugs/Alcohol

This unit must teach driver-trainees the rules applicable to controlled substances (including prescription drugs) and alcohol use and testing related to the operation of a CMV.

Unit B1.5.10 Medical Requirements

This unit must teach driver-trainees the Federal rules on medical certification, medical examination procedures, general qualifications, responsibilities, and disqualifications based on various offenses, orders, and loss of driving privileges (49 CFR part 391, subparts B and E).

Behind-the-Wheel Range

This unit must teach driving exercises related to basic vehicle control skills and mastery of basic maneuvers, as covered in §§ 383.111 and 383.113 of this chapter necessary to operate the vehicle safely. The training providers must teach driver-trainees activities in this unit on a driving range as defined in § 380.605. The training provider must teach "Get Out and Look" (GOAL) to the driver-trainee as it applies to units B2.2-2.6.

Unit B2.1 Vehicle Inspection Pre-Trip/Enroute/Post-Trip

Driver-trainees must demonstrate proficiency in conducting pre-trip and post-trip inspections as specified in §§ 392.7 and 396.11, including appropriate inspection locations. Instruction must also be provided on enroute vehicle inspections.

Unit B2.2 Straight Line Backing

Driver-trainees must demonstrate proficiency in proper techniques for performing various straight line backing maneuvers to appropriate criteria/acceptable tolerances.

Unit B2.3 Alley Dock Backing (45/90 Degree)

Driver-trainees must demonstrate proficiency in proper techniques for performing 45/90 degree alley dock maneuvers to appropriate criteria/acceptable tolerances.

Unit B2.4 Off-Set Backing

Driver-trainees must demonstrate proficiency in proper techniques for performing off-set backing maneuvers to appropriate criteria/acceptable tolerances.

Unit B2.5 Parallel Parking Blind Side

Driver-trainees must demonstrate proficiency in proper techniques for performing parallel parking blind side positions/maneuvers to appropriate criteria/acceptable tolerances.

Unit B2.6 Parallel Parking Sight Side

Driver-trainees must demonstrate proficiency in proper techniques for performing sight side parallel parking maneuvers to appropriate criteria/acceptable tolerances.

Behind-the-Wheel Public Road

The instructor must engage in active two-way communication with the driver-trainees during all active BTW public road training sessions. Skills described in paragraphs B3.8 through 3.12 of this section must be discussed during public road training, but not necessarily performed. Driver-trainees are not required to demonstrate proficiency in the skills described in paragraphs B3.8 through 3.12.

Unit B3.1 Vehicle Controls Including: Left Turns, Right Turns, Lane Changes, Curves at Highway Speeds, and Entry and Exit on the Interstate or Controlled Access Highway

Driver-trainees must demonstrate proficiency in proper techniques for initiating vehicle movement, executing left and right turns, changing lanes, navigating curves at speed, exiting and entering the interstate, and stopping the vehicle in a controlled manner.

Unit B3.2 Shifting/Transmission

Driver-trainees must demonstrate proficiency in proper techniques for performing safe and fuel-efficient shifting.

Unit B3.3 Communications/Signaling

Driver-trainees must demonstrate proficiency in proper techniques for signaling intentions and effectively communicating with other drivers.

Unit B3.4 Visual Search

Driver-trainees must demonstrate proficiency in proper techniques for visually searching the road for potential hazards and critical objects.

Unit B3.5 Speed and Space Management

Driver-trainees must demonstrate proficiency in proper habits and techniques for adjusting and maintaining vehicle speed, taking into consideration various factors such as traffic and road conditions. Driver-trainees must demonstrate proficiency in maintaining proper speed to keep appropriate spacing between the driver-trainee's CMV and other vehicles. Instruction must include methods for calibrating safe following distances under an array of conditions including traffic, weather, and CMV weight and length.

Unit B3.6 Safe Driver Behavior

Driver-trainees must demonstrate proficiency in safe driver behavior during their operation of the CMV.

Unit B3.7 Hours of Service (HOS) Requirements

Driver-trainees must demonstrate proficiency in the basic activities required by the HOS regulations, such as completing a Driver's Daily Log (electronic and paper), timesheet, and logbook recap, as appropriate.

Unit B3.8 Hazard Perception

Driver-trainees must demonstrate their ability to recognize potential hazards in the driving environment in time to reduce the severity of the hazard and neutralize possible emergency situations. Driver-trainees must demonstrate the ability to identify road conditions and other road users that are a potential threat to vehicle safety and suggest appropriate adjustments.

Unit B3.9 Railroad (RR)-Highway Grade Crossing

Driver-trainees must demonstrate the ability to recognize potential dangers and to demonstrate appropriate safety procedures when RR-highway grade crossings are reasonably available.

Unit B3.10 Night Operation

Driver-trainees must be familiar with how to operate a CMV safely at night. Training providers must teach driver-trainees that night driving presents specific circumstances that require heightened attention on the part of the driver. Driver-trainees must be taught special requirements for night vision, communications, speed, space management, and proper use of lights.

Unit B3.11 Extreme Driving Conditions

Driver-trainees must be familiar with the special risks created by, and the heightened precautions required by, driving CMVs under extreme driving conditions, such as heavy rain, high wind, high heat, fog, snow, ice, steep grades, and curves. Training providers must teach driver-trainees the basic driving habits needed to deal with the specific challenges presented by these extreme driving conditions.

Unit B3.12 Skid Control/Recovery, Jackknifing, and Other Emergencies

Driver-trainees must know the causes of skidding and jackknifing and techniques for avoiding and recovering from them. Driver-trainees must know how to maintain directional control and bring the CMV to a stop in the shortest possible distance while operating over a slippery surface. Driver-trainees must be familiar with proper techniques for responding to CMV emergencies, such as evasive steering, emergency braking, and off-road recovery. They must also know how to prevent or respond to brake failures, tire blowouts, hydroplaning, and rollovers.

[81 FR 88794, Dec. 8, 2016, as amended at 83 FR 22875, May 17, 2018]

Pt. 380, App. C

Appendix C to Part 380—Passenger Endorsement Training Curriculum

Passenger (P) endorsement applicants must complete the curriculum outlined in this section, which applies to driver-trainees who expect to operate CMVs in the any of the vehicle groups defined in § 383.91(a)(1)-(3) for which a P endorsement is required.

There is no required minimum number of instruction hours for theory training, but the training provider must cover all the topics set forth in the curriculum. There is no required minimum number of instruction hours for BTW training, but training providers must determine whether driver-trainees have demonstrated proficiency in all elements of the BTW curriculum. Training instructors must document the total number of clock hours each driver-trainee spends to complete the BTW curriculum. The training must be conducted in a passenger vehicle of the same vehicle group as the applicant intends to drive. The passenger endorsement training must, at a minimum, contain the following:

Theory Instruction

Unit C1.1 Post-Crash Procedures

This unit must teach driver-trainees appropriate post-crash procedures, including the requirement that the driver, if possible, assess his or her physical condition immediately after the crash and notify authorities, or assign the task to a passenger or other individuals at the crash scene. Also, training providers must teach driver-trainees how to obtain emergency medical assistance; move on-road vehicles off the road in minor crashes so as to avoid subsequent crashes or injuries; engage flashers, reflective triangles and other warning devices for stopped vehicles; and properly use a fire extinguisher if necessary.

Unit C1.2 Other Emergency Procedures

This unit must instruct driver-trainees in managing security breaches, on-board fires, emergency exit and passenger evacuation training, medical emergencies, and emergency stopping procedures including the deployment of various emergency hazard signals. Instruction must also include procedures for dealing with mechanical breakdowns and vehicle defects while enroute.

Unit C1.3 Vehicle Orientation

This unit must teach driver-trainees the basic physical and operational characteristics of passenger-carrying CMV (e.g., bus and motor coach), including overall height, length, width, ground clearances, rear overhang,

Gross Vehicle Weight and Gross Vehicle Weight Rating, axle weights, wheels and rims, tires, tire ratings, mirrors, steer wheels, lighting, windshield, windshield wipers, engine compartments, basic electrical system, brake systems, as applicable, and spare tire storage. Additionally, training providers must instruct driver-trainees in techniques for proper driver seat and mirror adjustments.

Unit C1.4 Pre-Trip, Enroute, and Post-Trip Inspection

This unit must teach the driver-trainee the importance of pre-trip, enroute, and post-trip inspections; and provide instruction in techniques for conducting such inspections as stated in §§ 392.7 and 396.11, and demonstrate their ability to inspect the following:

- (1) Emergency exits;
- (2) Passenger-carrying CMV interiors (including passenger seats as applicable);
- (3) Restrooms and associated environmental requirements;
- (4) Temperature controls (for maintaining passenger comfort);
- (5) Driver and passenger seat belts.

Additionally, training providers must instruct driver-trainees in procedures, as applicable, in security-related inspections, including inspections for unusual wires or other abnormal visible materials, interior and exterior luggage compartments, packages or luggage left behind, and signs of cargo or vehicle tampering. Finally, training providers must instruct driver-trainees in cycling-accessible lifts and procedures for inspecting them for functionality and defects.

Unit C1.5 Fueling

This unit must instruct driver-trainees on the significance of avoiding refueling a bus while passengers are onboard and the imperative of avoiding refueling in an enclosed space.

Unit C1.6 Idling

This unit must teach driver-trainees the importance of compliance with State and local laws and regulations, including for example, idling limits, fuel savings; and the consequences of non-compliance, including adverse health effects and penalties.

Unit C1.7 Baggage and/or Cargo Management

In this unit, training providers must teach driver-trainees:

- (1) Proper methods for handling and securing passenger baggage and containers, as applicable.
- (2) Procedures for identifying and inspecting baggage and containers for prohibited items, such as hazardous materials.
- (3) Proper handling and securement of devices associated with the Americans with Disabilities Act (ADA) compliance, including oxygen, wheeled mobility devices, and other associated apparatuses.

Unit C1.8 Passenger Safety Awareness Briefing

This unit must teach driver-trainees how to brief passengers on safety topics including fastening seat belts, emergency exits, emergency phone contact information, fire extinguisher location, safely walking in the aisle when the bus is moving, and restroom emergency push button or switch.

Unit C1.9 Passenger Management

In this unit, training providers must teach driver-trainees:

- (1) Proper procedures for safe loading and unloading of passengers prior to departure, including rules concerning standing passengers and the standee line.
- (2) Procedures for dealing with disruptive passengers.

Unit C1.10 Americans With Disabilities Act (ADA) Compliance

Along with addressing the proper operation of accessibility equipment (e.g., lifts), this must teach driver-trainees the applicable regulations and proper procedures for engaging persons with disabilities or special needs under the ADA. Training must cover passengers with mobility issues, engaging passengers with sight, hearing, or cognitive impairments, and recognizing the permitted use of service animals.

Unit C1.11 Hours of Service (HOS) Requirements

This unit must teach driver-trainees the HOS regulations that apply to drivers for interstate passenger carriers. Training providers must teach driver-trainees the basic activities required by the HOS regulations, such as completing a Driver's Daily Log (electronic and paper), timesheet, and logbook recap, as appropriate. Training providers must teach driver-trainees how to recognize the signs of fatigue and basic fatigue countermeasures as a means to avoid crashes.

Unit C1.12 Safety Belt Safety

This unit must teach driver-trainees the Federal rules governing the proper use of safety restraint systems by CMV drivers, as set forth in § 392.16.

Unit C1.13 Distracted Driving

This unit must teach driver-trainees FMCSA regulations that prohibit drivers from texting or using hand-held mobile phones while operating their vehicles (e.g., §§ 392.80 and 392.82); and must teach the serious consequences of violations, including crashes, heavy fines, and impacts on a motor carrier's and/or driver's safety records, such as driver disqualification.

Unit C1.14 Railroad (RR)-Highway Grade Crossings and Drawbridges

This unit must instruct driver-trainees in applicable regulations, techniques, and procedures for navigating RR-highway grade crossings and drawbridges appropriate to passenger buses.

Unit C1.15 Weigh Stations

This unit must teach driver-trainees the weigh-station regulations that apply to buses.

Unit C1.16 Security and Crime

This unit must teach driver-trainees the basic techniques for recognizing and minimizing physical risks from criminal activities.

Unit C1.17 Roadside Inspections

This unit must teach driver-trainees what to expect during a standard roadside inspection conducted by authorized personnel. Training providers must teach driver-trainees what passenger-carrying vehicle and driver violations are classified as out-of-service (OOS), including the ramifications and penalties for operating a CMV when subject to an OOS order as defined in § 390.5.

Unit C1.18 Penalties and Fines

This unit must teach driver-trainees the potential consequences of violating driver-related regulations, including impacts on driver and motor carrier safety records, adverse impacts on the driver's Pre-employment Screening Program record; financial penalties for both the driver and carrier; and possible loss of CMV driving privileges.

Behind the Wheel—Range and Public Road

This BTW training consists of exercises related to basic vehicle control skills and mastery of basic maneuvers necessary to operate the vehicle safely. Activities in this unit will take place on a driving range or a public road as defined in § 380.605. The instructor must engage in active communication with the driver-trainees during all BTW training sessions.

Unit C2.1 Vehicle Orientation

Driver-trainees must demonstrate their familiarity with basic passenger-carrying CMV physical and operational characteristics including overall height, length, width, ground clearances, rear overhang, gross vehicle weight and gross vehicle weight rating, axle weights, wheels and rims, tires, tire ratings, mirrors, steer wheels, lighting, windshield, windshield wipers, engine compartments, basic electric system, and spare tire storage. Additionally, driver-trainees must demonstrate techniques for proper driver's seat and mirror adjustments.

Unit C2.2 Pre-Trip, Enroute, and Post-Trip Inspection

Driver-trainees must demonstrate proficiency in conducting such pre-trip, enroute and post-trip inspections of buses and key components of §§ 392.7 and 396.11, and demonstrate their ability to inspect the following:

- (1) Emergency exits;
- (2) Passenger-carrying CMV interiors (including passenger seats as applicable);
- (3) Restrooms and associated environmental requirements;
- (4) Temperature controls (for maintaining passenger comfort); and
- (5) Driver and passenger seat belts.

Additionally, driver-trainees must demonstrate their knowledge of procedures, as applicable, in security-related inspections, including inspections for unusual wires or other abnormal visible materials, interior and exterior luggage compartments, packages or luggage left behind, and signs of cargo or vehicle tampering. Driver-trainees must be familiar with the operation of cycling-accessible lifts and the procedures for inspecting them for functionality and defects. For passenger-carrying vehicles equipped with said lifts and tie-down positions, trainee must demonstrate their ability to operate the cycling-accessible lifts.

Unit C2.3 Baggage and/or Cargo Management

In this unit, driver-trainees must demonstrate their ability to:

- (1) Properly handle passenger baggage and containers to avoid worker, passenger, and non-passenger related injuries and property damage;
- (2) Visually inspect baggage and containers for prohibited items, such as hazardous materials and identify such items;
- (3) Properly handle and secure devices associated with ADA compliance including oxygen, wheeled mobility devices, and other associated apparatuses.

Unit C2.4 Passenger Safety Awareness Briefing

Driver-trainees must demonstrate their ability to brief passengers on safety on topics including: Fastening seat belts, emergency exits, emergency phone contact information, fire extinguisher location, safely walking in the aisle when the bus is moving, and restroom emergency push button or switch.

Unit C2.5 Passenger Management

In this unit, driver-trainees must demonstrate their ability to safely load and unload passengers prior to departure and to deal with disruptive passengers.

Unit C2.6 Railroad-Highway Grade Crossings

Driver-trainees must demonstrate proper procedures for safely navigating railroad-highway grade crossings in a passenger-carrying CMV.

[81 FR 88794, Dec. 8, 2016]

Pt. 380, App. D

Appendix D to Part 380—School Bus Endorsement Training Curriculum

School bus (S) endorsement applicants must complete the curriculum outlined in this section, which applies to driver-trainees who expect to operate a "school bus" as defined in § 383.5. There is no required minimum number of instruction hours for theory training, but the training provider must cover all the topics set forth in the curriculum. There is no required minimum number of instruction hours for BTW training, but the training provider must determine whether driver-trainees have demonstrated proficiency in all elements of the BTW curriculum. Training instructors must document the total number of clock hours each driver-trainee spends to complete the BTW curriculum. The training must be conducted in a school bus of the same vehicle group as the applicant intends to drive. The school bus endorsement training must, at a minimum, include the following:

Theory Instruction

Unit D1.1 Danger Zones and Use of Mirrors

This unit must teach driver-trainees the danger zones that exist around the school bus and the techniques to ensure the safety of those around the bus. These techniques include correct mirror adjustment and usage. The types of mirrors and their use must be discussed, as well as the requirements found in Federal Motor Vehicle Safety Standard (FMVSS) 111 (49 CFR 571.111). Training providers must teach driver-trainees the dangers of "dart-outs." Training providers must teach driver-trainees the importance of training students how to keep out of the danger zone when around school buses and the techniques for doing so.

Unit D1.2 Loading and Unloading

This unit must be instruct driver-trainees on the laws and regulations for loading and unloading, as well as the required procedures for students waiting at a bus stop and crossing the roadway at a bus stop. Special dangers involved in loading and unloading must be specifically discussed, including procedures to ensure the danger zone is clear and that no student has been caught in the doorway prior to moving the vehicle. Instruction also must be included on the proper use of lights, stop arms, crossing gates, and safe operation of the door during loading and unloading; the risks involved with leaving students unattended on a school bus; and the proper techniques for checking the bus for sleeping children and lost items at the end of each route.

Unit D1.3 Vehicle Orientation

This unit must teach driver-trainees the basic physical and operational characteristics of school buses, including overall height, length, width, ground clearances, rear overhang, Gross Vehicle Weight and Gross Vehicle Weight Rating, axle weights, wheels and rims, tires, tire ratings, mirrors, steer wheels, lighting, windshield, windshield wipers, engine compartments, basic electrical system, brake systems, as applicable, and spare tire storage. Additionally, the training providers must instruct driver-trainees in techniques for proper driver seat and mirror adjustments.

Unit D1.4 Post-Crash Procedures

This unit must instruct driver-trainees on the proper procedures following a school bus crash. The instruction must include use of fire extinguisher(s), first aid kit(s), tending to injured passengers, post-crash vehicle securement, notification procedures, deciding whether to evacuate the bus, data gathering, and interaction with law enforcement officials.

Unit D1.5 Emergency Exit and Evacuation

This unit must teach driver-trainees their role in safely evacuating the bus in an emergency and planning for an emergency in advance. Training must include proper evacuation methods and procedures, such as the safe evacuation of students on field and activity trips who only occasionally ride school buses and thus may not be familiar with the procedures.

Unit D1.6 Railroad-Highway Grade Crossings

This unit must teach driver-trainees the dangers trains present and the importance of the school bus driver and students strictly following railroad crossing procedures. Instruction must be given on the types of

crossings, warning signs and devices, and State and local procedures and regulations for school buses when crossing railroad-highway grade crossings.

Unit D1.7 Student Management

This unit must teach driver-trainees how to manage student behavior on the bus to ensure that safety is maintained and the rights of others are respected. Specific student management techniques must be discussed, including warning signs of bullying and the techniques for managing student behavior and administering discipline. Training providers must teach driver-trainees to avoid becoming distracted by student behavior while driving, especially when crossing railroad tracks and during loading and unloading.

Unit D1.8 Special Safety Considerations

This unit must teach the driver-trainees the special safety considerations and equipment in school bus operations. Topics discussed must include use of strobe lights, driving in high winds, safe backing techniques, and preventing tail swing crashes.

Unit D1.9 Pre- and Post-Trip Inspections

This unit must teach the driver-trainees the importance of pre-trip, enroute, and post-trip inspections; and provide instruction in techniques for conducting such inspections of buses as stated in §§ 392.7 and 396.11, and additionally demonstrate their ability to inspect the following:

- (1) Stop arms,
- (2) Crossing arms,
- (3) Emergency exits,
- (4) Fire extinguishers,
- (5) Passenger seats,
- (6) First aid kits,
- (7) Interior lights, and
- (8) Temperature control (for maintaining passenger comfort).

Training providers must instruct driver-trainees in State and local requirements, as applicable, for inspection of school bus equipment.

Unit D1.10 School Bus Security

This unit must teach driver-trainees the security issues facing school bus drivers. Training providers must also teach driver-trainees potential security threats, techniques for preventing and responding to security threats, how to recognize and report suspicious behavior, and what to do in the event of a hijacking or attack on a school bus.

Unit D1.11 Route and Stop Reviews

This unit must teach driver-trainees the importance of planning their routes prior to beginning driving in order to avoid distraction while on the road. The training provider must also teach driver-trainees the techniques for reviewing routes and stops, as well as State and local procedures for reporting hazards along the route and at bus stops.

Behind the Wheel—Range and Public Road

This unit must consist of exercises related to basic vehicle control skills and mastery of basic maneuvers. Activities in this unit will take place on a driving range or a public road as defined in § 380.605. The instructor must engage in active communication with the driver-trainees during all active training sessions.

Unit D2.1 Danger Zones and Use of Mirrors

Driver-trainees must demonstrate the techniques necessary to ensure the safety of persons in the danger zone around the bus. Driver-trainees must practice mirror adjustment and usage. The types of mirrors and their use are shown, and cones used to demonstrate the requirements of 49 CFR 571.111.

Unit D2.2 Loading and Unloading

Driver-trainees must demonstrate the loading and unloading techniques learned in the theory portion of the training. Driver-trainees must demonstrate checking the vehicle for sleeping children and lost items at the end of the route.

Unit D2.3 Emergency Exit and Evacuation

Driver-trainees must demonstrate their role in safely evacuating the bus in an emergency.

Unit D2.4 Special Safety Considerations

Driver-trainees must demonstrate safe backing techniques and demonstrate their ability to avoid tail swing crashes by using reference points when making turns.

Unit D2.5 Pre- and Post-Trip Inspections

Driver-trainees must demonstrate proficiency in conducting pre-and post-trip inspections, as stated in §§ 392.7 and 396.11, and of school bus-specific equipment, such as mirrors, stop arms, crossing arms, emergency exits, fire extinguishers, passenger seats, first aid kits, interior lights, and temperature control.

Unit D2.6 Railroad-Highway Grade Crossings

Driver-trainees must demonstrate proper procedures for safely navigating railroad-highway grade crossings in a school bus.

[81 FR 88794, Dec. 8, 2016]

Pt. 380, App. E

Appendix E to Part 380—Hazardous Materials Endorsement Training Curriculum

Hazardous materials (H) endorsement applicants must complete the Hazardous materials curriculum, which apply to driver-trainees who intend to operate CMVs used in the transportation of hazardous materials (HM) as defined in § 383.5. Driver-trainees seeking an H endorsement, as defined in § 383.93(c)(4), must complete this curriculum in order to take the State-administered knowledge test for the H endorsement. There is no required minimum number of instruction hours for theory training, but the training provider must cover all the topics in the curriculum. The HM curriculum must, at a minimum, include the following:

Theory Instruction

Unit E1.1 Basic Introductory HM Requirements

This unit must teach driver-trainees the basic HM competencies, including applicable FMCSR requirements when HM is being transported. The training provider must also teach driver-trainees HM communication requirements including: Shipping paper requirements, marking, labeling, placarding, emergency response information, and shipper's responsibilities.

Unit E1.2 Operational HM Requirements

This unit must teach driver-trainees the basic competencies for transportation of HM.

Unit E1.3 Reporting HM Crashes and Releases

The unit must teach driver-trainees the proper procedures and contacts for the immediate notification related to certain HM incidents, including instruction in the proper completion and submission of HM Incident Reports.

Unit E.4 Tunnels and Railroad (RR)-Highway Grade Crossing Requirements

This unit must teach driver-trainees the proper operation of an HM vehicle at RR-highway grade crossings and in vehicular tunnels.

Unit E1.5 Loading and Unloading HM

This unit must teach driver-trainees the proper loading and unloading procedures for hazardous material cargo. Training providers must also teach driver-trainees the requirements for proper segregation and securement of HM, and the prohibitions on transporting certain solid and liquid poisons with foodstuffs.

Unit E1.6 HM on Passenger Vehicles

This unit must teach driver-trainees the various requirements for vehicles transporting passengers and property, and the types and quantities of HM that can and cannot be transported in these vehicles/situations.

Unit E1.7 Bulk Packages

This unit must teach driver-trainees the specialized requirements for transportation of cargo in bulk packages, including cargo tanks, intermediate bulk containers, bulk cylinders and portable tanks. The unit must include training in the operation of emergency control features, special vehicle handling characteristics, rollover prevention, and the properties and hazards of the HM transported. Training providers must teach driver-trainees methods specifically designed to reduce cargo tank rollovers including, but not limited to, vehicle design and performance, load effects, highway factors, and driver factors.

Unit E1.8 Operating Emergency Equipment

This unit must teach driver-trainees the applicable requirements of the FMCSRs and the procedures necessary for the safe operation of the motor vehicle. This includes training in special precautions for fires, loading and unloading, operation of cargo tank motor vehicle equipment, and shut-off/shut-down equipment.

Unit E1.9 Emergency Response Procedures

This unit must teach driver-trainees the proper procedures and best practices for handling an emergency response and post-response operations, including what to do in the event of an unintended release of an HM. All training, preparation, and response efforts must focus on the hazards of the materials that have been released and the protection of people, property, and the environment.

Unit E1.10 Engine (Fueling)

This unit must teach driver-trainees the procedures for fueling a vehicle that contains HM.

Unit E1.11 Tire Check

This unit must teach driver-trainees the proper procedures for checking the vehicle tires at the start of a trip and each time the vehicle is parked.

Unit E1.12 Routes and Route Planning

This unit must teach driver-trainees the proper routing procedures that they are required to follow for the transportation of radioactive and non-radioactive HM.

Unit E1.13 Hazardous Materials Safety Permits (HMSP)

This unit must teach driver-trainees the proper procedures and operational requirements including communications, constant attendance, and parking that apply to the transportation of HM for which an

HMSP is required.

[81 FR 88794, Dec. 8, 2016]

Pt. 380, App. F

Appendix F to Part 380—LCV Driver Training Programs, Required Knowledge and Skills

The following table lists topics of instruction required for drivers of longer combination vehicles pursuant to 49 CFR part 380, subpart B. The training courses for operators of LCV Doubles and LCV Triples must be distinct and tailored to address their unique operating and handling characteristics. Each course must include the minimum topics of instruction, including behind-the-wheel training designed to provide an opportunity to develop the skills outlined under the Proficiency Development unit of the training program. Only a skills instructor may administer behind-the-wheel training involving the operation of an LCV or one of its components. A classroom instructor may administer only instruction that does not involve the operation of an LCV or one of its components.

Table to the Appendix—Course Topics for LCV Drivers

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Section 1—Orientation

The units in this section must provide an orientation to the training curriculum and must cover the role LCVs play within the motor carrier industry, the factors that affect their operations, and the role that drivers play in the safe operation of LCVs.

Unit 1.1—LCVs in Trucking. This unit must provide an introduction to the emergence of LCVs in trucking and must serve as an orientation to the course content. Emphasis must be placed upon the role the driver plays in transportation.

Unit 1.2—Regulatory factors. This unit must provide instruction addressing the Federal, State, and local governmental bodies that propose, enact, and implement the laws, rules, and regulations that affect the trucking industry. Emphasis must be placed on those regulatory factors that affect LCVs, including 23 CFR 658.23 and appendix C to part 658.

Unit 1.3—Driver qualifications. This unit must provide classroom instruction addressing the Federal and State laws, rules, and regulations that define LCV driver qualifications. It also must include a discussion on medical examinations, drug and alcohol tests, certification, and basic health and wellness issues. Emphasis must be placed upon topics essential to physical and mental health maintenance, including (1) diet, (2) exercise, (3) avoidance of alcohol and drug abuse, and caution in the use of prescription and nonprescription drugs, (4) the adverse effects of driver fatigue, and (5) effective fatigue countermeasures. Driver-trainees who have successfully completed the Entry-level training segments at § 380.503(a) and (c) are considered to have satisfied the requirements of Unit 1.3.

Unit 1.4—Vehicle configuration factors. This unit must provide classroom instruction addressing the key vehicle components used in the configuration of longer combination vehicles. It also must familiarize the driver-trainee with various vehicle combinations, as well as provide instruction about unique characteristics and factors associated with LCV configurations.

Section 2—Basic Operation

The units in this section must cover the interaction between the driver and the vehicle. They must teach driver-trainees how to couple and uncouple LCVs, ensure the vehicles are in proper operating condition, and control the motion of LCVs under various road and traffic conditions.

During the driving exercises at off-highway locations required by this section, the driver-trainee must first familiarize himself/herself with basic operating characteristics of an LCV. Utilizing an LCV, students must be able to perform the skills learned in each unit to a level of proficiency required to permit safe transition to on-street driving.

Unit 2.1—Coupling and uncoupling. This unit must provide instruction addressing the procedures for coupling and uncoupling LCVs. While vehicle coupling and uncoupling procedures are common to all truck-tractor/semi-trailer operations, some factors are peculiar to LCVs. Emphasis must be placed upon preplanning and safe operating procedures.

Unit 2.2—Basic control and handling. This unit must provide an introduction to basic vehicular control and handling as it applies to LCVs. This must include instruction addressing brake performance, handling characteristics and factors affecting LCV stability while braking, turning, and cornering. Emphasis must be placed upon safe operating procedures.

Unit 2.3—Basic maneuvers. This unit must provide instruction addressing the basic vehicular maneuvers that will be encountered by LCV drivers. This must include instruction relative to backing, lane positioning and path selection, merging situations, and parking LCVs. Emphasis must be placed upon safe operating procedures as they apply to brake performance and directional stability while accelerating, braking, merging, cornering, turning, and parking.

Unit 2.4—Turning, steering, and tracking. This unit must provide instruction addressing turning situations, steering maneuvers, and the tracking of LCV trailers. This must include instruction related to trailer sway and off-tracking. Emphasis must be placed on maintaining directional stability.

Unit 2.5—Proficiency development: basic operations. The purpose of this unit is to enable driver-students to gain the proficiency in basic operation needed to safely undertake on-street instruction in the Safe Operations Practices section of the curriculum.

The activities of this unit must consist of driving exercises that provide practice for the development of basic control skills and mastery of basic maneuvers. Driver-students practice skills and maneuvers learned in the Basic Control and Handling; Basic Maneuvers; and Turning, Steering and Tracking units. A series of basic exercises is practiced at off-highway locations until students develop sufficient proficiency for transition to on-street driving.

Once the driver-student's skills have been measured and found adequate, the driver-student must be allowed to move to on-the-street driving.

Nearly all activity in this unit will take place on the driving range or on streets or roads that have low-density traffic conditions.

Section 3—Safe Operating Practices

The units in this section must cover the interaction between student drivers, the vehicle, and the traffic environment. They must teach driver-students how to apply their basic operating skills in a way that ensures their safety and that of other road users under various road, weather, and traffic conditions.

Unit 3.1—Interacting with traffic. This unit must provide instruction addressing the principles of visual search, communication, and sharing the road with other traffic. Emphasis must be placed upon visual search, mirror usage, signaling and/or positioning the vehicle to communicate, and understanding the special situations encountered by LCV drivers in various traffic situations.

Unit 3.2—Speed and space management. This unit must provide instruction addressing the principles of speed and space management. Emphasis must be placed upon maintaining safe vehicular speed and appropriate space surrounding the vehicle under various traffic and road conditions. Particular attention must be placed upon understanding the special situations encountered by LCVs in various traffic situations.

Unit 3.3—Night operations. This unit must provide instruction addressing the principles of Night Operations. Emphasis must be placed upon the factors affecting operation of LCVs at night. Night driving presents specific factors that require special attention on the part of the driver. Changes in vehicle safety inspection, vision, communications, speed management, and space management are needed to deal with the special problems night driving presents.

Unit 3.4—Extreme driving conditions. This unit must provide instruction addressing the driving of LCVs under extreme driving conditions. Emphasis must be placed upon the factors affecting the operation of LCVs in cold, hot, and inclement weather and in the mountains and desert. Changes in basic driving habits are needed to deal with the specific problems presented by these extreme driving conditions.

Unit 3.5—Security issues. This unit must include a discussion of security requirements imposed by the Department of Homeland Security, Transportation Security Administration; the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration; and any other State or Federal agency with responsibility for highway or motor carrier security.

Unit 3.6—Proficiency development. This unit must provide driver-students an opportunity to refine, within the on-street traffic environment, their vehicle handling skills learned in the first three sections. Driver-student performance progress must be closely monitored to determine when the level of proficiency required for carrying out the basic traffic maneuvers of stopping, turning, merging, straight driving, curves, lane changing, passing, driving on hills, driving through traffic restrictions, and parking has been attained. The driver-student must also be assessed for regulatory compliance with all traffic laws.

Nearly all activity in this unit will take place on public roadways in a full range of traffic environments applicable to this vehicle configuration. This must include urban and rural uncontrolled roadways, expressways or freeways, under light, moderate, and heavy traffic conditions. There must be a brief classroom session to familiarize driver-students with the type of on-street maneuvers they will perform and how their performance will be rated.

The instructor must assess the level of skill development of the driver-student and must increase in difficulty, based upon the level of skill attained, the types of maneuvers, roadways and traffic conditions to which the driver-student is exposed.

Section 4—Advanced Operations

The units in this section must introduce higher level skills that can be acquired only after the more fundamental skills and knowledge taught in sections two and three have been mastered. They must teach the perceptual skills necessary to recognize potential hazards, and must demonstrate the procedures needed to handle an LCV when faced with a hazard.

The Maintenance and Trouble-shooting Unit must provide instruction that addresses how to keep the vehicle in safe and efficient operating condition. The purpose of this unit is to teach the correct way to perform simple maintenance tasks, and how to troubleshoot and report those vehicle discrepancies or deficiencies that must be repaired by a qualified mechanic.

Unit 4.1—Hazard perception. This unit must provide instruction addressing the principles of recognizing hazards in sufficient time to reduce the severity of the hazard and neutralize a possible emergency situation. While hazards are present in all motor vehicle traffic operations, some are peculiar to LCV operations. Emphasis must be placed upon hazard recognition, visual search, and response to possible emergency-producing situations encountered by LCV drivers in various traffic situations.

Unit 4.2—Hazardous situations. This unit must address dealing with specific procedures appropriate for LCV emergencies. These must include evasive steering, emergency braking, off-road recovery, brake failures, tire blowouts, rearward amplification, hydroplaning, skidding, jackknifing and the rollover

phenomenon. The discussion must include a review of unsafe acts and the role they play in producing hazardous situations.

Unit 4.3—Maintenance and trouble-shooting. This unit must introduce driver-students to the basic servicing and checking procedures for the various vehicle components and provide knowledge of conducting preventive maintenance functions, making simple emergency repairs, and diagnosing and reporting vehicle malfunctions.

Section 5—Non-Driving Activities

The units in this section must cover activities that are not directly related to the vehicle itself but must be performed by an LCV driver. The units in this section must ensure these activities are performed in a manner that ensures the safety of the driver, vehicle, cargo, and other road users.

Unit 5.1—Routes and trip planning. This unit must address the importance of and requirements for planning routes and trips. This must include classroom discussion of Federal and State requirements for a number of topics including permits, vehicle size and weight limitations, designated highways, local access, the reasonable access rule, staging areas, and access zones.

Unit 5.2—Cargo and weight considerations. This unit must address the importance of proper cargo documentation, loading, securing and unloading cargo, weight distribution, load sequencing and trailer placement. Emphasis must be placed on the importance of axle weight distribution, as well as on trailer placement and its effect on vehicle handling.

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