

MODULE 2: Pilot Escort Operator and Vehicle Equipment Requirements

For the pilot/escort vehicle operator (P/EVO) industry, rules are made overwhelmingly at the State level. Each State has requirements about both the P/EVO and the escort vehicle. And for nearly every load movement, each State along the route issues a permit for load movement within its borders. Many aspects of the load movement will be specified on the permit; for example, the route to be followed, the specific dates of travel and times of day movement is allowed, local jurisdictions and utilities that must be contacted, the number of escorts required, and many other requirements.

It is also important to know that States also differ when it comes to the agency that oversees P/EVOs and oversize load movement. For example, in Minnesota, the department of public safety regulates P/EVO operations for the most part, but flagging information is produced by the department of transportation.¹² In Oklahoma, on the other hand, routes for oversize loads are issued by the department of public safety, while overweight load routes are handled by the State department of transportation.¹³

These State to State differences are not only problematic for P/EVOs but also for carriers and even the States themselves. Efforts to better standardize P/EVO operators and permits have been in place for more than a decade and have met with some success. The American Association of State Highway and Transportation Officials (AASHTO) has established a truck oversize/overweight permit harmonization initiative, stating, "AASHTO member States are committed to harmonizing permit procedures and requirements between States, among States in regions, and on multi-state corridors."¹⁴

AASHTO and others involved in the movement of oversize loads are focusing initially on P/EVO requirements, including certification requirements; flags, lights, and other equipment requirements; curfews; and other matters. (See also the *AASHTO Guide for Vehicle Weights and Dimensions*.¹⁵) The areas of focus for the harmonization effort include the number of days allowed on single-trip permits, the processes for amending permits, and the type and size of escort vehicles.¹⁶ AASHTO is coordinating with private sector shippers and carriers in these efforts.

This module is focused on the most common rules for P/EVOs and their vehicles among the States. It should be clear by now that P/EVOs must know the laws and rules in each State, including certification and equipment requirements. Lesson 1 includes pilot/escort driver requirements, and Lesson 2 describes the equipment that is recommended and typically required by States.¹⁷

LESSON 1: PILOT ESCORT OPERATOR REQUIREMENTS

Pilot/Escort Vehicle Operator Certification and Reciprocity among States

Of the 50 States, about 12 currently require P/EVOs to be certified. Each of these States has different procedures for becoming a certified pilot/escort operator.

However, many States have P/EVO certification reciprocity agreements; i.e., as with driver's licenses, States will accept the P/EVO certification from reciprocating States.

However, these agreements are in place for certification only; reciprocating States do not have the same rules regarding vehicles or equipment. One example is the required age for escorts: many States require the P/EVO be 21, while several allow P/EVOs to be certified at age 18. Some States may require P/EVOs to complete a driver improvement/defensive driving course in addition to the P/EVO certification. Other States may require a certain amount of insurance coverage. Still other States reciprocate in terms of escort certification, but also require P/EVOs be certified flaggers. So, even when a reciprocity agreement is in place between two States, the P/EVO must still know the laws and rules of each State in which he or she operates.

Driver improvement courses are beneficial to drivers. Insurance rates are frequently lower to those who have taken such courses because they have been linked to lower rates of crashes and injuries. P/EVOs over the age of 55 might consider taking a driver improvement course offered by the American Association of Retired Persons or participating in the American Automobile Association's (AAA) Roadwise© program, both of which are widely accepted by insurance companies and

permitting/ certifying officials. These courses should be repeated every 3 years and are strongly recommended for all drivers.

Many States accept P/EVO certification from other States, similar to the way all States recognize driver's licenses and commercial driver's licenses from all other States. Many States enter into reciprocity agreements with States that have similar requirements for P/EVO certification. Most certifying States require students to attend a 1-day course, typically every 3 to 5 years, and require a passing grade on a written test. Each State designs its own class and tests, although many of the courses are similar.

General Skills

A successful P/EVO has excellent communication skills and is engaged and curious about all aspects of load movement. P/EVOs should have a professional appearance and manner, although they are prohibited from displaying any badge, shield, emblem, or uniform of color or design that may be mistaken for a law enforcement badge, emblem, or uniform.¹⁸

P/EVOs should be physically fit, mentally alert, and well rested before beginning any trip. Adequate hearing, vision, and physical mobility are especially important for safe traffic control operations.

Other Useful Credentials for Pilot/Escort Vehicle Operators

Transportation Worker Identification Credential (TWIC) Cards. TWIC cards have been required since 2009 for anyone entering a secure area of a maritime port. Without a TWIC card, the person must be accompanied at all times by someone who does have the card. For work around ports, TWIC is important.¹⁹

Cardio-Pulmonary Resuscitation (CPR) and First Aid. As a matter of general safety, and regardless of profession, all adults should have recurrent first aid and CPR training. Given the remote locations encountered during load movement, along with the prevalence of heart attack, the more people who are competent in first aid and CPR procedures, the better. All vehicles should have CPR equipment, including barrier devices and/or a rescue mask, on board.

Defensive Driving. Many major insurance companies offer discounts to drivers who participate in a 6- to 8-hour in-person course (not online), and who repeat the course every 3 years. In addition, some States are now requiring P/EVOs have a current defensive driving certificate to operate. Whether required by law or not, the benefits of lower insurance premiums and the importance of learning about and hearing reminders of safe driving practices is a good investment of time and money—an efficient way to mitigate risk.

TEST YOUR KNOWLEDGE

1. What determines the route to be followed and the dates and times of travel?
2. How old must P/EVOs be?
3. Certification typically lasts how long?
4. When is it appropriate for a P/EVO to wear or display uniforms, emblems, or vehicle decals that resemble those of a law enforcement officer?
5. What is a TWIC card?

LESSON 2: ESCORT VEHICLE EQUIPMENT REQUIREMENTS

The P/EVO performs critical tasks during every phase of oversize load movement. In order to perform these duties, certain vehicle types are recommended and specialized equipment is required. States vary in the vehicle requirements and in equipment required for P/EVOs. This lesson provides information about the most common equipment required. As with all other aspects of the job, P/EVOs are responsible for knowing the equipment that is required by every State in which they operate.²⁰

There are no consistent rules about the types of vehicles that are to be used as escort vehicles. In many States, passenger cars weighing at least 2,000 pounds or pickup trucks rated at least $\frac{1}{4}$ ton capacity are minimum, but no maximum size is specified. Other States focus on visibility, requiring escort vehicles that enable the driver to see 360 degrees from the driver's

seat. In such cases, cargo vans or panel trucks are not allowed.

The Commercial Vehicle Safety Alliance (CVSA), the Specialized Carriers & Rigging Association (SC&RA), and the Federal Highway Administration (FHWA), among other groups suggest the following equipment be carried in or displayed on escort vehicles at a minimum:

- Signs.
- Flags (vehicle flags as well as a flag for emergency traffic control, described below).
- Warning lights.
- Full-size spare tire and tools for changing.
- Fire extinguisher.
- Mirrors.
- Hardhats & safety vests.
- STOP/SLOW paddle.
- Cones and reflectors.
- Flashlight and cone.
- First aid kit.
- Spare parts/fluids.
- Measuring pole.
- Radio.

Signs.²¹ Several signs are typically required by the States. The first is the Oversize Load sign. All States require Oversize Load signs for not only the escort vehicle but also the load vehicle, and these signs are to be the same color: black letters on yellow background. However, where the sign must be displayed and the size of the sign and letters vary. Most States allow for the sign to be mounted on top of the escort vehicle, and this is recommended placement because the sign is more visible when on top of the vehicle, and a longer term consideration is that a great deal of modern electronics technology is located in the bumpers of vehicles (both load vehicles and escort vehicles), including crash avoidance systems. P/EVOs must know the size the sign must be for each State; it is recommended the P/EVO obtain the largest sign required by the States in which the P/EVO operates.

Looking Ahead

The trend is for the Oversize Load sign to be on top of the escort vehicle. Using this method, visibility is improved for highway users, and safety technologies, including crash-prevention devices, are installed in the vehicle bumpers of both load vehicles and passenger vehicles used by P/EVOs.

In addition to the Oversize Load sign, signs on both sides of the escort vehicle are also required by many States. These signs typically require, at a minimum, the name of the P/EVO and/or the company name, and the city and State in which the P/EVO is based. Other States also require a telephone number, and States typically allow a company logo if desired. Requirements about the size of these signs, colors, and other requirements vary from State to State. These signs do not typically have to be removed or covered when the P/EVO is not escorting a load; these signs both act as a means of identifying a P/EVO and promote the P/EVO's business.

As with other equipment mentioned here, it is the responsibility of P/EVOs to meet the standards of each State. It is also the case that if the Oversize Load sign properly displayed on the escort vehicle is bigger than a given State requires, this is not a problem so long as the sign does not extend beyond the width of the vehicle. Therefore, P/EVOs should find the size requirement for each State in which they intend to work and make the Oversize Load sign conform to the State with the biggest size requirement. It is also important to have Oversize Load signs that are retroreflective for nighttime operations.

Flags.²² Many States require warning flags be displayed on the escort vehicle. That is where the similarity ends, however. Some States require two flags, while others require four. Some States require the flags to be 12 inches by 12 inches, but others require they be 18 inches by 18 inches. Further, where the flags are to be placed on the vehicle also varies. Some States require the flags be mounted from the top of the cab, while others require flags at the vehicle extremities.

It is frequently the case that if P/EVOs meet a higher standard in one State, there are no problems in States that require a lower standard. For example, if a State requires 12-inch flags but the P/EVO uses 18-inch flags, this is typically acceptable among States requiring smaller ones.

As mentioned, the P/EVO is responsible to know how many flags, the size of the flags required, and the placement of those flags in each State in which they operate. Finally, it is important to check flags for fading or fraying and to replace them when needed.²³

Warning Lights.²⁴ In addition to fully functioning headlights, taillights, brake lights, and emergency flashers, at least one amber warning light is required for the escort vehicle. Most States require the warning light be visible from 500 feet, and the light should rotate, oscillate, and/or flash through 360 degrees, consistent with the minimum requirements stated in Part 6 of the Manual on Uniform Traffic Control Devices.

No warning lights or flags should be displayed unless the P/EVO is actively engaged in load movement or is conducting a route survey. Several States fine P/EVOs for having the warning light on and/or Oversize Load sign(s) displayed when not involved in escort activities. Extra bulbs for not only the warning light, but also headlights, taillights, etc. should be carried by the P/EVO at all times.

Unlike the Oversize Load sign and the warning lights, the signs on the sides of the escort vehicle may be displayed at all times, whether the P/EVO is performing escort duties or not. (See Module 6 for more information about post-trip responsibilities.)

Spare Tire. Being equipped with full-size spare tires is advisable and is even required by many States. In addition, a lug wrench, jack, or any other tools needed to change the tire are also required in States that require a full-size spare. This is another piece of equipment that should be carried by the P/EVO whether laws require it or not. It is not helpful for load movement to be delayed due to a lack of a road-worthy spare tire.

Fire Extinguisher(s).²⁵ Fire extinguisher standards for commercial vehicles are found in 49 Code of Federal Regulations Part 393.95.²⁶ Most States require P/EVOs carry fire extinguisher(s). If no hazardous materials are being transported, the FMCSA requires fire extinguishers have an Underwriters' Laboratories rating of 5 B:C or more, or two fire extinguishers, each with a rating of 4 B:C or more. Each fire extinguisher must be labeled or marked by the manufacturer with its Underwriters' Laboratories rating and must be designed, constructed, and maintained so that visual determination of whether the extinguisher is fully charged or not is possible.

The fire extinguisher(s) must be filled and located so they are readily accessible. Many States require the extinguisher(s) must be securely mounted to prevent sliding, rolling, or vertical movement relative to the motor vehicle. Finally, fire extinguishers must use an extinguishing agent that does not need protection from freezing, and extinguishing agents must comply with the toxicity provisions of the Environmental Protection Agency's Significant New Alternatives Policy regulations under 40 CFR Part 82, Subpart G. It is also recommended the extinguishers be shaken frequently to avoid settling and packing of the extinguishing agent, which occurs due to normal vehicle vibration while driving.

Mirrors.²⁷ Outside rear-view mirrors on both sides of the escort vehicle are needed. Curved mirrors (convex, fisheye, for example) are often helpful. Experiment with what produces the best field of vision for your particular vehicle. Remember that convex mirrors produce a wider field of vision, but it also makes objects seem farther away than they actually are. AAA suggests adjusting the seat by extending arm to the front and adjust seat until palm of hand is in line with top of steering wheel.²⁸

To get the most from side mirrors, AAA recommends that, when setting the left mirror, the driver should put his or her head against the driver's side window and set the mirror where only a very small sliver of the vehicle can be seen in the mirror. Similarly, when setting the right hand mirror, the driver should lean over his or her head is in line with the rear view mirror; the right mirror should be set the same way as the left; that is, swing the mirror out until only a tiny amount of the vehicle is seen in the mirror. This creates much better visibility in traditional blind spots for all highway users, including the P/EVO and load driver.²⁹ When driving, the driver should scan the mirrors without focusing on any particular mirror for too long.

Hardhats and Safety Vests.³⁰ Hardhats must comply with the American National Standards Institute (ANSI) Z 89.1-2009 requirements. ANSI has divided impact protection into two categories, Type I and Type II. Type I hardhats are designed to mitigate blows to the top of the head; for example, a tool falling from above. Type II hardhats are more versatile and, therefore, are recommended for P/EVOs. Type II hardhats reduce the force of impact that may be off-center, from the side, or the top of the head. This form of impact, for example, may result from contact with any protruding part of a load. The hardhat for the P/EVO is also used to increase visibility when flagging traffic.

Safety vests are required for flaggers and others involved in roadside operations, according to the Manual on Uniform Traffic Control Devices high-visibility safety apparel standard³¹ and must meet the ANSI Performance Class 2 or 3 requirements for daytime and nighttime activity. According to the standard, "the apparel background (outer) material color shall be fluorescent

orange-red, fluorescent yellow-green, or a combination of the two. The retro-reflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly identify the wearer as a person."

STOP/SLOW Paddle.³² Most States require P/EVOs to carry at least one 18-inch *STOP/SLOW* paddle. The paddle should have a reflective surface and be standard in shape (i.e., octagonal) and color (i.e., the *STOP* side must be red with white letters, while the *SLOW* side must be orange with black letters). The minimum size is 18-inches with 6-inch letters; however, when controlling traffic at highway speeds, a 24-inch paddle is recommended. Some States require P/EVOs carry two paddles in a crash situation; for example, when the load driver may need to help with traffic control. (Load drivers are not currently required to carry a *STOP/SLOW* paddle.)

The P/EVO should have a pole about 7-feet tall for mounting the *STOP/SLOW* paddle when traffic control will be needed for more than a few minutes. Standard traffic signs are installed so that the bottom of the sign is 7 feet from the ground. By having a pole this length, the *STOP/SLOW* paddle will be in the area drivers commonly see stop signs. This also places the *STOP/SLOW* paddle well above the flagger's head in nearly all situations.

The *STOP/SLOW* paddle may be modified to improve conspicuity by incorporating either white or red flashing lights on the *STOP* face and either white or yellow flashing lights on the *SLOW* face. The flashing lights may be arranged in any of the several patterns. (Refer to the Manual on Uniform Traffic Control Devices (MUTCD) Section 6E.03 for details on light placement and other specifications.)

In addition to the *STOP/SLOW* paddle(s), many States also require P/EVOs carry a 24-inch by 24-inch red flag (or red-orange or fluorescent versions of those colors) for controlling traffic in an emergency when no *STOP/SLOW* paddle is available. At no time is the flag (or a *STOP/SLOW* paddle) to be held outside the window of a moving vehicle in an effort to stop traffic.

Reflective Cones and/or Triangles.³³ Most States require warning devices for stopped vehicles. Typically 3 bi-directional emergency reflective triangles³⁴ are required; however, some States require traffic cones of various sizes, and others require the P/EVO to carry flares. The FMCSA allows other warning devices to be used in addition to the triangles, but not in lieu of them, and provided that any additional warning devices do not decrease the effectiveness of the required warning devices.

Flashlight/Traffic Wand.³⁵ P/EVOs should carry at least one operating traffic wand flashlight equipped with a safety nose cone. The light should be LED and visible for 500 feet. The wand should be impact- and water-resistant and have a non-slip handle. The on-off switch should be visible night or day.

First-Aid Kit.³⁶ According to the American Red Cross, a first-aid kit should contain the following: personal items and medication, emergency numbers, compress dressings and adhesive bandages, gauze and tape, antibiotic and hydrocortisone ointment, and antiseptic wipes, aspirin, non-latex gloves, breathing barriers, cold compress, emergency blankets, thermometer, tweezers, and scissors.

Be sure to check the contents of the first aid kit from time to time to make sure none of the contents have expired. Replace any used or expired contents and keep the first aid kit out of the reach of children. Be sure to have extra batteries for flashlights, hearing aids, or other medical equipment. P/EVOs may be exposed to blood or other infectious materials when using first aid supplies in emergencies. P/EVOs should be familiar with the "Occupational Exposure to Blood Borne Pathogens" standard.³⁷ Personal protective equipment including gloves, masks, and eye protection should be included in the first aid kit.

P/EVOs who work with hazardous materials loads may need to supplement the basic first-aid kit with items related to the particular substances involved.³⁸ The American Red Cross publishes several booklets that are useful, especially the "Emergency First Aid Guide."³⁹

Spare/Replacement Equipment.⁴⁰ As mentioned in Module 2, P/EVOs should carry spare bulbs, batteries for flashlights and radios, fuses, as well as hoses, belts, and fluids like oil, coolant, and windshield washer fluid. Tools needed to make minor roadside repairs must also be in the escort vehicle.

Height Pole.⁴¹ A device to measure vertical clearance, known as a height pole, is needed when escorting loads greater than 14 feet 6 inches tall (though this too varies by State) and when conducting route surveys for tall loads. States vary, however, in terms of when a height pole is required, and this requirement is typically stated on the permit.

The height pole must be made of non-conductive, non-destructive flexible material and must be retractable, telescopic, or

removable when not in use. The height pole must be securely attached to the escort vehicle and must be designed and operated in a way that avoids causing any damage to overhead structures (e.g., signs, utility lines, and bridges). The height pole should be installed in a way that allows the P/EVO unobstructed visibility of the height pole, and it should be operated in a way that does not interfere with the P/EVO's ability to safely operate the vehicle and the communication equipment. (See also Module 5, Lesson 2)

Radio/Communication Equipment.⁴² The ability to easily and safely communicate with the load driver and other escorts is vital to successful oversize load movement. Nowhere is this more relevant than with height pole operation, discussed in Module 5. Communicating accurate information in time for the load driver to respond to hazards is central to safe operations.

Two-way radios or other communication devices, compatible with the load driver and other P/EVOs on the team and capable of transmitting and receiving signals for at least ½ mile, are required by most States. In spite of leaps in sophistication and capabilities of personal communication devices, including smart phones, **CB radios remain the best equipment for the load movement team.**⁴³ FMCSA has banned the use of cell phones for load drivers.⁴⁴ Individuals talking on cell phones are 400 percent more likely to be involved in a crash,⁴⁵ and interacting with the device by scanning contacts lists, dialing, looking at email messages, etc., increases the likelihood of a crash by 2300 percent.⁴⁶

The CB Radio Service, regulated by the Federal Communications Commission, is a private, two-way voice communication service and is the most reliable device for facilitating quality communication. CB radio range is from 1 to 5 miles, and P/EVOs must have the best equipment possible.

Although distracting, many load drivers (as those with oversize/overweight loads and escorts) must be in constant communication with P/EVOs. The best method of communicating remains the CB radio.

Benefits of CBs over Cell Phones

- Using a CB does not require the driver to dial or scan contacts lists, therefore the driver experiences substantially less visual distraction than using a cell phone, for example.
- CBs reduce the temptation use text messaging or email available on cell phones. The cell phone need not be where the driver can see or hear it.
- The carrier and P/EVOs reduce risks and liabilities by requiring drivers communicate via CB radio rather than with cell phones, whether hands free or hand-held.
- Many jurisdictions have banned all mobile devices for commercial drivers.
- Special consideration must be given to communication in flagging situations.
- CB users can reach anyone in the area tuned to the same channel, which has several benefits:
 - Drivers can learn about crashes, fires, weather conditions, and other traffic situations and can get updated information continually from other drivers in the area. Drivers familiar with a geographic area can provide information to drivers who are not.
 - Law enforcement personnel also monitor CB communications to learn about incidents, road conditions, etc.
 - Many P/EVOs install and monitor two CBs: on one they monitor road conditions and on the second they communicate with the load team. This practice also creates redundancy in communication equipment.

Even though each State specifies the requirements for P/EVO certification as well as the equipment required for escort vehicles, the requirements and equipment described in this module provide commonly required certification programs and equipment. The training and safety equipment discussed in this module are important whether a particular type of training or equipment is required or not.

TEST YOUR KNOWLEDGE

1. Are cargo vans or panel truck recommended as escort vehicles? Why or why not?
2. What are the advantages of putting the Oversize Load sign on the top of the vehicle rather than on the bumpers?
3. What is the minimum size for the *STOP/SLOW* paddle? What is the recommended size for controlling traffic at highway speeds of 60 mph or

more?

4. How tall should the pole be for the *STOP/SLOW* paddle? Why?
5. Why are CB radios recommended for P/EVOs?

¹² Minnesota Administrative Rules, "Chapter 7455, Pilot Vehicle Escort for Overdimensional Load." Available at: <https://www.revisor.mn.gov/rules/?id=7455>. [Return to [note 12](#).]

¹³ Oklahoma Administrative Code, Title 730, "Chapter 30-9-7(I). Overweight permits - specific conditions and restrictions." Available at: <http://www.oar.state.ok.us/>. [Return to [note 13](#).]

¹⁴ AASHTO, Board of Directors: Policy Resolution PR-3-12: *Actions to Reduce Impediments to Interstate Commerce-Harmonizing Requirements for Truck Permits (Phase I)* and *PR-13-13 (Phase II)*, Available at: <http://www.aashtojournal.org/Documents/November2012/PR-3-12.pdf>. [Return to [note 14](#).]

¹⁵ AASHTO, *Guide for Vehicle Weights and Dimensions, 4th edition* (Washington, DC: AASHTO, 2004). Available for a fee at: https://bookstore.transportation.org/Item_details.aspx?id=1530. [Return to [note 16](#).]

¹⁶ AASHTO, Board of Directors: Policy Resolution PR-3-12: *Actions to Reduce Impediments to Interstate Commerce-Harmonizing Requirements for Truck Permits (Phase I)* and *PR-13-13 (Phase II)*, Available at: <http://www.aashtojournal.org/Documents/November2012/PR-3-12.pdf>. [Return to [note 16](#).]

¹⁷ Not all of the equipment discussed in this module is required by all States, nor is the equipment included here an exhaustive list of what is required. Each State has rules about what must be carried in and displayed on escort vehicles. [Return to [note 17](#).]

¹⁸ U.S.C. § 912. [Return to [note 18](#).]

¹⁹ American Trucking Associations, "TWIC Compliance Goes Into Effect Nationwide; Coast Guard Grants ATA'S Request For Alternate Compliance," 4/14/2009, Available at: <http://www.trucking.org/article/TWIC%20Compliance%20Goes%20Into-Effect-Nationwide;-Coast-Guard-Grants-ATA'S-Request-For-Alternate-Compliance>. [Return to [note 19](#).]

²⁰ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 10. [Return to [note 20](#).]

²¹ Ibid, p. 11. [Return to [note 21](#).]

²² Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 11, and see Title 49, Section 393.95 (k) for regulations about emergency flags for commercial vehicles. [Return to [note 22](#).]

²³ See Title 49 CFR, Section 393.95 (k) for regulations about emergency flags for commercial vehicles. [Return to [note 23](#).]

²⁴ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 10. [Return to [note 24](#).]

²⁵ Ibid., p. 13. [Return to [note 25](#).]

²⁶ Federal Motor Carrier Safety Regulations: <https://www.fmcsa.dot.gov/regulations/title49/section/393.95>. [Return to [note 26](#).]

²⁷ American Association of Motor Vehicle Administrators, *Model Commercial Driver License Manual* (AAMVA, July 2014), Section 2.4. Available at: <http://www.aamva.org/CDL-Manual/>. [Return to [note 27](#).]

²⁸ American Automobile Association, *How to Drive: the Beginning Student Manual*, 2004, p. 33. [Return to [note 2](#).]

- ²⁹ American Automobile Association, *AAA Driver Improvement Program Student Guide*, (n.d.), p. 8. [Return to [note 29](#).]
- ³⁰ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 12. [Return to [note 30](#).]
- ³¹ Federal Highway Administration, *Manual on Uniform Traffic Control Devices*, Part 6, Section 6E-02. Also, see ANSI, *Standard for High-Visibility Apparel and Headwear*, Sec. 1A.11. [Return to [note 31](#).]
- ³² Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 12; see also MUTCD Section 6E. [Return to [note 32](#).]
- ³³ *Ibid.*, p. 14; See also 49 CFR 393.95. [Return to [note 33](#).]
- ³⁴ See Federal Motor Vehicle Safety Standard No. 125, § 571.125. [Return to [note 34](#).]
- ³⁵ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 16. [Return to [note 35](#).]
- ³⁶ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 16. [Return to [note 36](#).]
- ³⁷ Occupational Safety and Health Administration, "Occupational Exposure to Blood Borne Pathogens." Available at: <https://www.osha.gov/Publications/osha3186.pdf>. [Return to [note 37](#).]
- ³⁸ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 14. [Return to [note 38](#).]
- ³⁹ American Red Cross, "Emergency First Aid Guide." Available at: <https://www.redcrossstore.org>. [Return to [note 39](#).]
- ⁴⁰ *Ibid.* [Return to [note 40](#).]
- ⁴¹ Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 15. [Return to [note 41](#).]
- ⁴² Federal Highway Administration, *Pilot Car Escort Training Manual: Best Practices for Pilot Car Escorts* (Washington, DC: FHWA, 2004), p. 15. [Return to [note 42](#).]
- ⁴³ CFR Parts 383, 384, 390, 391, and 392, Federal Register, Vol. 75, No. 244, December 21, 2010. Available at: <https://www.gpo.gov/fdsys/pkg/FR-2010-12-21/html/2010-31736.htm>. [Return to [note 43](#).]
- ⁴⁴ 49 CFR Part 177, Federal Register, Vol. 76, No. 232 (December 2, 2011). Available at: <https://www.gpo.gov/fdsys/pkg/FR-2011-12-02/html/2011-30749.htm>. [Return to [note 44](#).]
- ⁴⁵ David Kidd, Ph.D. "Searching for answers to the problem of distracted driving," presentation to the Joint meeting of Drive Smart Virginia and the ASSE Colonial Virginia Chapter, April 21, 2015, slide 5. Available at: http://www.iihs.org/media/d5958a09-77ab-4417-99ff-781b78c36f77/1734298945/Presentations/Kidd_2015%20VA%20DriveSmart.pdf. [Return to [note 45](#).]
- ⁴⁶ Virginia Tech Transportation Institute, "New data from Virginia Tech Transportation Institute provides insight into cell phone use and driving distraction," July 29, 2009. Available at: <http://www.vtnews.vt.edu/articles/2009/07/2009-571.html>. [Return to [note 46](#).]