

STAY ALIVE WHEN YOU DRIVE

Highway-Rail Grade Crossing Training for Professional Truck Drivers

Presented by Operation Lifesaver

PROVIDED IN THE INTEREST OF SAFETY



TRUCK DRIVER'S GUIDE



OPERATION
LIFESAVER®

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Professional Truck Driver's Guide

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Stay Alive When You Drive a DVD produced for Operation Lifesaver, Inc., by Big Picture
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Introduction

TARGET AUDIENCE

Operation Lifesaver worked with our safety partners in the trucking industry to develop this training video for professional drivers. This program is geared to increase driver awareness of the potential dangers at highway-rail grade crossings. Several situations that result in tragedy are reviewed to help drivers make decisions that could save their lives and the lives of others at highway-rail grade crossings.

OPERATION LIFESAVER, INC.

Stay Alive When You Drive, created for professional truck drivers, joins a number of training videos developed by Operation Lifesaver Inc. (OLI). OLI is a non-profit, public education and safety outreach program dedicated to ending collisions, deaths and injuries at highway-rail grade crossings and along railroad rights-of-way.

A certified presenter is available for free to speak to driver training classes to reinforce these safety materials for truck drivers. Operation Lifesaver presenters also give safety talks to community groups, school bus drivers, students and young drivers to raise awareness about railroad safety. Locate your state's Operation Lifesaver coordinator online at www.oli.org.

GOAL

Our goal is to assist drivers and driver trainers as we work together to eliminate tragedies at the crossings by explaining the potential dangers and how to avoid them.

U.S. RAIL INCIDENT STATISTICS

The most recent vehicle-train and pedestrian-train statistics are available at the Operation Lifesaver website:

www.oli.org/statistics/statistics_overview.htm.

This information comes from the Federal Railroad Administration, which is mandated by Congress to collect it from the railroads. The results can be officially reported up to 90 days after a collision.

Stay Alive When You Drive, Professional Driver Training Video Notes

Stay Alive When You Drive, a training video developed by Operation Lifesaver Inc., in cooperation with professional truck drivers and the railroad industry, provides important safety tips for drivers.

The video recognizes the enormous responsibilities faced by Operation Lifesaver's partners who operate 18-wheel vehicles, extended vans and everything in between.

Divided into six scenarios, this 14-minute, fast-paced video includes several truck-train crashes that illustrate the high stakes drivers face at crossings.

1. Stay Alive When You Drive – Introduction

- a Trains = 12 million pounds coming your way
- b Illusion: trains are moving slowly.
- c It takes a mile or more to stop a train = 18 football fields.

2. Should You Stay or Should You Go?

- a 15 – 50 Rule tells you where to stop.
- b Watch for Advance warnings, pavement markings, crossbuck.
- c You make the judgment; make it well.

3. Double Vision

- a Real challenge: multiple tracks
- b Know the length of your trailer and cab.
- c Add 15 feet when estimating length.

4. Low Rider

- a Don't get caught on a high profile/hump crossing.
- b Know your under clearance: between the bottom of truck and rail.
- c Remember to raise your trailer jack/dolly legs before moving.
- d Forgetting to bring up trailer legs can hang up truck at crossing.

5. Crossroads

- a To avoid a collision, follow signal of rail/police flagman.
- b If truck has a hazmat placard, it must stop at crossings.
- c Trains overhang the tracks by at least 3 feet on both sides.

6. If You're Stuck on the Tracks

- a GET OUT of your vehicle.
- b Use the phone number from the Emergency Notification sign at the railroad crossing to call to alert the railroad. If you don't have the number, call local police or 911.

7 Born to Be Wild

- a In bad weather, the wind can mask the sounds of train horns.
- b Take extra care to look and listen for trains in a storm.
- c Oversized loads require extra planning and smooth crossings.

8 Conclusion – Let's never cross paths!

- a You earn the title "Professional Driver" every day of the year.
- b Maintain your role in the nation's transportation system by following the safety tips in this training and your organization's training materials.

Six Steps for Truck Driver Safety

CROSSING A HIGHWAY-RAIL GRADE CROSSING

STEP 1 Approach with Care



Prepare to Stop

STEP 2 Turn Off Radio and Fan



a Roll Down Window **b** Listen for a Train

STEP 3 Look and Listen for Train



a Open Windows and Doors
b Look Both Ways Carefully
c Look and Listen for the Train

STEP 4 Do a Double Take



a If necessary, Rock Back and Forth to see around pillars, posts, buildings, trees, etc.

STEP 5 Stop no closer than 15 feet from the crossing



STEP 6 GO! Cross with Care



Review Procedures at Highway-Rail Crossings

FIVE SAFETY PROCEDURES

- When you see an Advance Warning sign, it alerts you to a railroad crossing ahead. It is time to begin to slow your vehicle, so you will be able to stop if a train is approaching.
- While slowing or stopped, look and listen carefully in each direction for the sight and sound of a train.
- Never shift on a railroad crossing to avoid the risk of stalling on the tracks.
- Check for traffic around you before you start to move towards a crossing. Use a pull-out lane, if one is available. Turn on your flashers, if necessary to warn traffic that you are slowing down or stopping at the crossing.
- Don't start across until you know you can cross the tracks completely without stopping.



BEFORE RESUMING TRAVEL

- Take a quick look in both directions before you start your rig across.
- If there is a traffic signal or a stop sign across the tracks, make certain traffic will not trap you on the crossing.
- Before you cross, plan to have 15 feet clearance between your ICC (rear) bumper of your truck and the farthest rail. This will prevent your truck's overhang from getting hit.
- If there are flashing lights and gates at the crossing, stop when the lights start to flash. Wait until the lights stop flashing and the gates go completely up.
- If there is no gate, but warning lights are flashing, you will be required to stop, then can proceed when it is safe to do so.
- If the warning lights at the crossing begin to flash *after* you have started across the tracks with your rig, keep going. Do not back up.



Signs and Signals at Highway-Rail Grade Crossings

PASSIVE SIGNS AT RAILROAD CROSSINGS

Passive signs (not electronic) and **Active traffic control devices** (gates, lights, bells) are installed along the roads near the railroad tracks to regulate, warn and guide traffic. They alert drivers to the presence of railroad tracks and to the possibility of an approaching train.

These signs and signal devices also provide a safety message and remind the driver of the laws regarding highway-rail grade crossings. What follows is a list of various signs and devices that you will encounter.



1. The **CROSSBUCK** sign appears on the right-hand side, prior to the railroad tracks. It has two white boards with the words: RAILROAD CROSSING. It marks the crossing and should be considered the same as a YIELD sign.

You will see crossings with different combinations of signage: a crossbuck with a stop sign attached below, where you are required to stop. At some crossings you will see a crossbuck paired with a yield sign. Trains then go, if it is clear. If the crossbuck appears alone here, you are required to check for trains and stop only if you see a train.

2. The **MULTIPLE TRACK** sign appears at the crossing, underneath the crossbuck. When a crossing has more than one set of tracks, this sign indicates exactly how many tracks there are.
3. The **STOP** and **YIELD** signs mean the same as they do at highway intersections. A driver must always stop at the STOP sign in advance of the railroad track. If there is no stop sign at the crossing, you must yield the right of way to a train.
4. The **DO NOT STOP ON THE TRACKS** sign requires the driver not to stop on the railroad tracks for any reason.
5. The **TRACKS OUT OF SERVICE** sign tells the driver that trains no longer travel these tracks. It is not necessary to stop at these crossings.

6. The **HIGH PROFILE/HIGH CENTER** (hump) crossing sign indicates a special problem for low clearance vehicles, such as lowboy equipment trailers, car carriers and moving vans.



7. **NO TRAIN HORN** sign shall be installed at each highway-rail grade crossing where there is a Federal Railroad Administration authorization for trains to not sound a horn. The sign shall be mounted as a supplemental placard below the Highway-Rail Grade Crossing Advance Warning.

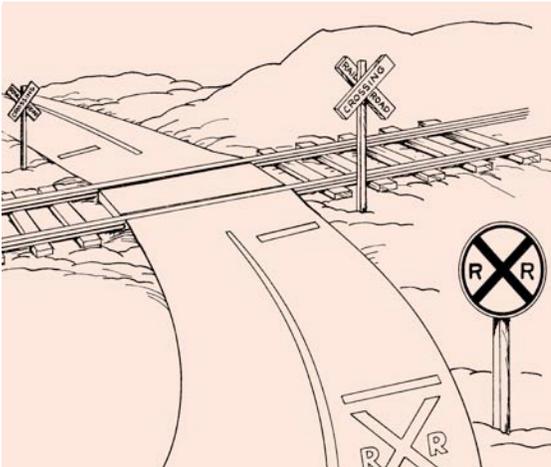


SIGNS IN ADVANCE OF THE CROSSING

1. Yellow circular **ADVANCE WARNING** sign warns that the road crosses the tracks ahead. It reminds you to slow down, look and listen for a train. Be prepared to stop if a train is approaching.
2. **PAVEMENT MARKINGS** (see next page) appear on paved roads near the yellow, circular Advance Warning sign alerts you that the road crosses railroad tracks ahead.



3. A **STOP LINE** may be painted across the approach lane on paved roads and identifies the safe place to stop if a train is approaching.



4. When a train approaches, you are required to stop the truck before the crossbuck sign or signal at the crossing. On gravel roads there are no pavement markings or stop Lines. The stop lines on each side of a single track grade crossing are at least 35 feet apart. Do not stop within this area. Remember to apply the emergency or parking brakes while waiting at the stop line, so your truck won't move or be shoved into the path of the train.

5. The yellow diamond **PARALLEL TRACK** sign identifies highway-rail grade crossings that appear immediately after you make either a right or left turn.



6. **LOW CLEARANCE** is another issue to consider when going under bridges or the edges of a building near or above the crossing.

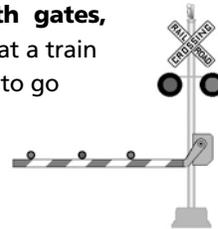
ACTIVE SIGNAL DEVICES AT RAILROAD CROSSINGS

These are electrically powered devices that warn of an approaching train. Know the regulations in the states where you operate.

1. **Flashing Red Lights**—with or without bells—warn of an approaching train. When the red lights are flashing, a train is approaching. Stop and wait for the train to pass, then proceed when it is clearly safe to do so.



2. **Flashing Red Lights—with gates, bells and gates**—warn that a train is approaching. It is illegal to go around lowered gates. Before crossing, wait until the gates are completely up and the lights go out.



Special Procedures

POLICE OFFICER OR FLAGMAN AT THE CROSSING

If a uniformed law enforcement officer in contact with the railroad or a flagman from the railroad is directing traffic at the crossing, follow their directions.

If there is no flagman, and you believe the signals are malfunctioning, do not proceed. Look for a phone number on the Emergency Notification sign at or near the crossing to report the situation to the railroad or contact local law enforcement. Then find another route.

PLANNING A SAFE ROUTE

When possible in planning your route, select a route that contains the fewest highway-rail grade crossings. When it is necessary to cross tracks, select the safest crossings—those that offer the best sight distance (no obstructions to your clear line of vision down the tracks). Select crossings that offer you enough containment or storage area for you to stop at a stop sign or stoplight directly across the tracks. Allow enough space for your truck to fit on the other side without overhang onto the tracks. Be especially careful at passive crossings (those without gates, flashing lights, bells). At these crossings it will be up to you to judge if a train is coming without the assistance of electronic equipment.

STORAGE AREA

If it won't fit, don't commit. Each driver needs to know the length of their truck, and the size of the area across the tracks. This is called the storage or containment area.

When approaching a crossing with a traffic light or stop sign on the far side, be sure there is enough room to proceed to avoid your truck from hanging over the tracks. You must look ahead and use your judgment. If there is any doubt about the storage space necessary to completely clear the tracks, don't start to cross. Remember, the train will be at least 3 feet wider than the rails on both sides.

WATCH YOUR TRUCK'S OVERHANG

Know the length of your truck and allow for your vehicle's overhang. While the wheels of the truck may have crossed both tracks, you might forget that your back end could still be hanging over the tracks. Many times a crash could be avoided if it weren't for the last few feet. That's why it's important to know the length of your truck and add 15 feet for safety when figuring crossing distances.

HAZMAT VEHICLES

If drivers are transporting hazardous materials, they are required to stop at rail crossings. The law specifies a stopping point between 15 and 50 feet from the nearest rail. The class can discuss specific loads that require vehicles to stop.

PLAN AHEAD TO AVOID AN EMERGENCY

Learn the jurisdictions where you travel (which county and the city street crossings), so that you will know who to call if you get stuck or need assistance in a hurry. If your truck does get stuck on a crossing, you need to take two actions:

1. Get out of your truck IMMEDIATELY. The quicker you act, the more likely you'll be able to alert the railroad to avert a tragedy.
2. The Emergency Notification Sign you noted on your review of the crossing contains a phone number to the railroad. Call it. Explain your location, including the DOT number listed on the sign. If there is no sign, call the local authorities or 911.



Real Incidents - Lessons Learned

Bourbonnais, Illinois - March 16, 1999

An Amtrak train collides with a flatbed truck loaded with steel-reinforced rebar. Eleven people died. One-hundred-twenty-two were injured. It is the worst truck-train crash in recent history.

The investigation of this incident continued longer than usual because of the seriousness of the incident. It revealed the driver had gone without sleep, which may have impaired his decision making ability. The driver may have misjudged the speed of the train – 79 mph. You can avoid this mistake by waiting when you see a train. When people's lives are in the balance, a few moments' wait is well worth the time.

Portage, Indiana – June 18, 1998

A tractor-trailer with a set of doubles carrying steel coils started through a multiple-track crossing at a steel mill. Halfway through, the gates lowered, trapping the truck. The driver thought there was enough space between the tracks to avoid being hit by the train.

But the second trailer, carrying a 19-ton steel coil hung over the back set of railroad tracks. As a freight train passed in front of the truck, a light-rail commuter train approached on the back tracks. The collision slung the steel coil into the lead car of the light-rail train, killing three people.

This collision took place before 6 am. Some speculated that the driver did not think that the commuter rail service would be running that early. It's safer to assume a train could always be right around the bend. Make sure. Because there were multiple tracks, this would have been a difficult crossing, no matter the time of day. If there are difficult crossings on your route, talk with your safety manager to see if there is a better route or if a discussion with the railroad and transit agency might determine a better time to approach the crossing. No one wants a repeat of Portage.

Crescent, Iowa – April 10, 2009

A Nebraska man died of injuries suffered when the dump truck he was driving was hit by a train near Crescent, Iowa. The driver was injured during the collision as he tried to cross a highway-railroad grade crossing. Officials said the railroad crossing



A beer truck got high-centered on this crossing prior to the collision.

signals and traffic control devices were functioning at the time.

While it's difficult to know exactly what happened at the time of a crash, it is important to remain focused on the road and safe driving habits—anytime you are behind the wheel.

San Francisco, California – March 16, 2009

Eight people were injured when a San Francisco Municipal Railway train collided with an 18-wheeled truck in the city's Dogpatch neighborhood. The crash happened around 3:20 pm when the truck turned left in front of the train.

This left-hand turn in front of a street-running train, generally a light rail vehicle, is a particular hazard in California, but a growing problem elsewhere. Now cities around the country, in an attempt to reduce traffic, are developing light rail systems that have this same problem. If you drive a route that leads you into these busy city centers (like Salt Lake City, Baltimore, Dallas, Portland) take note.

Brighton, Illinois – December 8, 2008

Ten people were injured when a train hit a tractor-trailer that blocked the tracks in southern Illinois. The driver left the vehicle when he heard the train horn. The locomotive and four railcars slipped off the rails, but remained upright.

It may be impossible to be a back-seat driver after the fact, but it is necessary for drivers to take a moment when coming up to a crossing to assess traffic. Then it is important to judge the length of one's vehicle and whether it is possible to get across the tracks without being caught in the middle with a train bearing down.

Commercial Driver Disqualifications

Professional truck drivers have an important responsibility to follow the rules at railroad crossings. Penalties that will disqualify a commercial drivers license holder for 60 days for a first time conviction are in place. These penalties increase with each additional violation.

So, if you are caught running a gate or not obeying the rules at the crossing, you could lose your license, not to mention your life.

SPECIFIC REGULATIONS

A driver convicted of operating a commercial motor vehicle (CMV) in violation of any of these six offenses at a highway- rail grade crossing must be disqualified for a specified period of time, not less than 60 days.

A. Violations

1. Drivers who are not required to always stop, if they fail to slow down and check that the tracks are clear of an approaching train.
2. Drivers who are not required to always stop, but fail to stop before reaching the crossing if the tracks are not clear.
3. Drivers who are always required to stop, but fail to stop before driving onto the crossing.
4. Drivers who fail to have sufficient space to drive completely through the crossing without stopping.
5. Drivers who fail to obey a traffic control device (lights and gates) or the directions of an enforcement official at the crossing.
6. Drivers who fail to negotiate a crossing because of insufficient undercarriage clearance. (Getting stuck on a hump or high profile crossing).

B. Penalties

1. First violation—Driver disqualified for not less than 60 days.
2. Second violation—Driver disqualified for not less than 120 days during any 3-year period for separate incidents.
3. Third violation—Driver disqualified for not less than 1 year during any 3-year period for separate incidents.

C. Special Penalties

Any employer who knowingly allows a disqualified driver to operate a Commercial Motor Vehicle must be subject to a civil penalty of not more than \$10,000.

SAFETY STATISTICS

- ✓ Approximately every 3 hours a vehicle or a pedestrian collide with a train in the United States.
- ✓ A motorist is 20 times more likely to die in a collision with a train than in a collision involving another motor vehicle.
- ✓ In most years, more people die in collisions with trains than in commercial airline crashes, according to National Safety Council statistics.
- ✓ Nearly 50 percent of crashes at public highway-rail intersections occur where active warning devices have been installed and are working properly.

Professional Truck Driver Safety Quiz

Circle the most correct answer to each question.

1. What does a crossbuck sign mean?

- a. Stop
- b. Yield
- c. One Way
- d. Do not enter



2. What are some of the other signs you might see at the crossing?

- a. A crossbuck with a stop sign
- b. A crossbuck with a yield sign
- c. A Don't Stop on Tracks sign
- d. All of the above.



3. An average freight train traveling 55 miles an hour takes a mile or more to stop. Which of these is equal in length to a mile?

- a. 18 football fields
- b. 15 city blocks
- c. 22 runs around a baseball diamond
- d. All of the above.

4. When you come up to a railroad crossing, how can you tell if you have enough room to safely clear the crossing?

- a. There's always enough room. Crossings are designed that way.
- b. You have to get out of the truck and measure.
- c. Know your truck length plus add 15 feet between your rear bumper and the farthest rail.
- d. Add 5 feet to the length of your cab & trailer.

5. Why is it hard to tell the speed of a train approaching the crossing?

- a. Trains can change speeds suddenly.
- b. An optical illusion makes the train seem farther away and moving more slowly than it actually is.
- c. Train's headlights don't shine at the same time.
- d. Truck cabs are high off the ground.

6. How long is a truck driver who holds a CDL disqualified from driving after a first conviction (violating railroad crossing safety regulations)?

- a. No less than 30 days.
- b. No less than 60 days.
- c. No less than 90 days.
- d. Six months.

7. What does this sign mean?

- a. The truck broke in two.
- b. The driver has an injured back.
- c. This is a high-profile, high-centered crossing.
- d. Lightning struck the truck.



8. When approaching a railroad crossing with a crossbuck, but no gate or flashing lights, what should you do?

- a. Crank up the radio
- b. Speed up
- c. Slow down, look and listen for a train and be prepared to stop.
- d. Hazmat vehicles should slowly go through the crossing.

9. If you have begun to cross the tracks when the warning lights begin to flash at the crossing, what should you do?

- a. Stop
- b. Back up
- c. Get out and lift the gate.
- d. Proceed across and clear the tracks.

10. Your truck gets stuck on the crossing. What steps do you take?

- a. Stay in the cab.
- b. Try to find a tow truck to move your rig.
- c. Get out and away from the tracks fast. Call the railroad or 911.
- d. Run down the track waving to an approaching train.

11. Why do trucks get hung up on a railroad crossing?

- a. Soil expands, which can make the crossing higher.
- b. Spring thaw from rain and snow can raise the crossing, while the ground sinks.
- c. Landing gear, truck jack or dolly legs are still extended.
- d. Each of the above.

12. You're stuck at a railroad crossing. You see the train coming and get out of your vehicle. Why is it best to walk in the direction of the train (if you see it), but at a 45 degree angle away from the tracks?

- a. You will be out of the path of the debris.
- b. The impact will occur at the crossing, while you walk in the opposite direction.
- c. It can take a mile for the average train to stop, so the truck will be pushed down the tracks, away from the crossing.
- d. All of the above.

13. When will a driver, who is required to have a commercial driver's license, be disqualified from operating a commercial motor vehicle for 60 days?

- a. When a CDL driver fails to slow down and check that the tracks are clear of an approaching train.
- b. When a driver, who is not required to stop, but seeing a train fails to stop before reaching the crossing.
- c. When a driver is always required to stop (for example with a truck carrying hazmat), fails to stop before reaching the crossing.
- d. Each of the above.

Answer true or false to each statement by marking a T or an F.

14. ___ Federal law prohibits masking of violations involving rail crossings.

(Masking is using a defensive driving class to expunge a traffic ticket or having the court reduce or switch the ticket to a lesser violation.)

15. ___ Some trucks must always stop at railroad crossings.

16. ___ A STOP sign at a highway-rail intersection means the same thing as a STOP sign at any intersection.

17. ___ The number posted below a crossbuck shows how many tracks there are at the crossing.

18. ___ When the gates stay down after a train has passed on a crossing with more than one set of tracks, it can mean another train is coming.

19. ___ If your truck stalls on the tracks, stay in the cab and keep trying to move your truck.

20. ___ If you can see a train, the train may not be able to stop in time to avoid a collision. It can take a mile or more to stop a train.

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