

OVER DRIVING THE HEADLIGHTS AND OTHER NIGHT DRIVING ISSUES IN INTERSTATE TRUCKING CASES

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Introduction

In recognition of the potential dangers associated with the operation of a tractor-trailer, the Federal Motor Carrier Safety Regulations (“FMCSRs”) were promulgated years ago in an effort to improve large truck safety. Despite these regulations, however, large truck crashes remain a significant problem in the U.S. In 2007, there were 144,171 large trucks crashes resulting in 4,808 fatalities and nearly 84,000 injuries.¹ *About 25,000 large truck crashes in 2007 occurred at night.* Consequently, an attorney litigating tractor trailer cases stands a relatively good chance of handling a night time crash case.

An understanding of issues related to night driving is essential to litigating a case involving a night time tractor-trailer collision. This paper will discuss the “Rules of the Road” litigation technique advanced by Rick Friedman and Patrick Malone in their book,² and will explore the application of this technique in cases involving the night time operation of a tractor-trailer and “over driving” the headlights. In addition, this paper will discuss the concept of over driving the headlights; suggest ways to determine and prove a trucker was over driving the headlights; and outline various rules of the road for night driving that can be formulated using your state’s Commercial Driver License Manual (“CDL Manual”).

Rules of the Road for Night Time Truck Collisions, and Where to Find Them

In every case we handle as trial lawyers, we must establish liability by proving the defendant failed to exercise reasonable care. There is probably no better way of doing so than employing

¹ The statistical data in this paper related to large truck crashes (and a wealth of additional information pertaining to commercial motor vehicles) is available online at www.ai.fmcsa.dot.gov).

² *Rules of the Road: A Plaintiff Lawyer's Guide to Proving Liability*, by Rick Friedman and Patrick Malone (Trial Guides 2006). If you have not already read this book, I highly recommend you obtain a copy and read it.

the Rules of the Road model of Friedman and Malone.³ Interstate Trucking cases are particularly well-suited for application of the Rules of the Road concept, largely because of the myriad of safety rules and regulations that exist for truckers and trucking companies. An important step, therefore, when handling a night time trucking case--or any trucking case for that matter--is to look for potential rules a trucker must follow.

Any attorney handling an interstate trucking case is probably well-versed in the FMCSRs. The duties the FMCSRs place on truck drivers and trucking companies are an excellent source for establishing the liability foundation for a truck collision claim. When developing the Rules of the Road for a trucking case, the FMCSRs are a good starting point.

The rules for a commercial motor vehicle operator, of course, are not confined to the federal regulations applicable to interstate trucking. Many rules can be constructed from basic, common sense safety concepts. Therefore, although the FMCSRs are a good place to start when formulating the rules for your night time trucking case, they are not your only source. A key component of a good rule, however, is that it must be a rule that is universally accepted as true.

One good place to mine for "universal truths" for night time trucking collisions is the applicable State CDL Manual. As a prerequisite to obtaining a CDL, a person must, inter alia, pass a written knowledge test and a skills test. The State CDL Manual serves as the would-be trucker's study guide for passing these tests. Although knowledge of interstate trucking safety concepts will vary from truck driver to truck driver, if the concept is in the State CDL Manual, most truckers will probably agree with the rule.

And unlike some rules crafted using common sense and general safety concepts, a rule taken directly from a State CDL Manual usually carries more weight. If you set up the rule in a deposition by first discussing the CDL testing process and the manual the truck driver used to study for the tests, it is almost impossible to deny. Support for all of the concepts discussed in this paper can be found in the applicable state CDL Manual. Although the citations in this paper reference the Indiana CDL Manual, most state CDL manuals are either exactly the same or substantially similar from state-to-state⁴, and can be obtained online in electronic format.⁵

Get the Evidence and the Experts to Support Your Rules

Accumulating a long, laundry list of rules is pointless, however, if you do not have the evidence to prove the rule was violated in your case. Consequently, although crafting a good set rules is an important step in handling a trucking case, it is equally important to preserve evidence for later

³ *Id.*

⁴ The state-to-state similarity in the CDL Manuals is largely due to the Commercial Motor Vehicle Safety Act of 1986. The Act established the minimum national standards that must be met before a State can issue a license to a Commercial Motor Vehicle Operator.

⁵ Most States' CDL Manuals are easily retrieved with an online search that contains the state name and "CDL Manual."

discovery. The defense will likely have an investigator or an attorney (or both) dispatched to the scene of a collision within hours of an incident, an opportunity we Plaintiff's lawyers are denied. As a result, once you get a trucking case, immediately send out a spoliation letter to the trucking company, the driver, and the insurer demanding they preserve all documents and other physical evidence.⁶

After you send out your spoliation letter, you should start evaluating the experts you may need in your case. In most cases involving a tractor-trailer collision, one or more experts will be needed. Proving a trucker was over driving the headlights requires, at a minimum, an accident reconstructionist to make the calculations you will need to prove your case. Other potential experts include former truck drivers, trucking consultants, and conspicuity or human factors specialists.

What is Over Driving the Headlights?

At all times while operating a commercial motor vehicle, a trucker must be driving at a speed slow enough to be able to come to a stop should a hazard appear in the roadway. During daylight hours, operators driving at highway speeds are trained to look ahead about a 1/4 mile for potential hazards.⁷ At night, however, a trucker can only see as far as the illumination cast by the headlights.

Consequently, a trucker driving at night must drive slowly enough to be able to stop within the distance of the headlights.⁸ Driving any faster is referred to as over driving the headlights. It is a potentially dangerous practice because, by the time the trucker sees a hazard, the object will be closer than the distance the driver needs to come to a complete stop.⁹ Over driving the headlights is essentially the same as driving too fast for conditions, a practice prohibited by the Federal Motor Carrier Safety Administration.¹⁰

Headlight Illumination Distance

The first step to determine whether a truck driver was over driving the headlights is to determine how far the headlights for the truck illuminate. To obtain the precise illumination distance figures, an inspection of the tractor-trailer is required. As a general rule, however, the headlights

⁶ All members of AAJ's Interstate Trucking Litigation Group receive a "Trucking Basics" CD which contains many of the basic trucking litigation forms, including a sample Spoliation Letter.

⁷ Indiana State CDL Manual (hereafter, "CDL Manual"), §2.4.1.

⁸ *Id.* at §2.11.4. The FMCSRs do not specifically address over driving the headlights, but do require that "speed shall be reduced" when, among other things, visibility is reduced. *See* 49 C.F.R. § 392.14.

⁹ CDL Manual at §2.11.4

¹⁰ *See* <http://www.fmcsa.dot.gov/about/outreach/education/driverTips/Too-Fast-for-Conditions-all.htm>; 49 C.F.R. § 392.14

on a tractor-trailer will shine ahead about 250 feet when driving with low beams, and about 350-500 feet with high beams.¹¹ In other words, a trucker will have up to twice as much space to stop when driving with the high beams activated. Part of your discovery, therefore, should be aimed at determining whether the high beams or low beams were on at the time of the crash.¹²

Other factors may also affect the illumination distance of the headlights on a truck. Verify that the headlights are working properly, have been adjusted correctly, and are free from dirt or debris. To best make these determinations, an immediate post-accident inspection is necessary. Of course, an early inspection is not always possible for the Plaintiff's bar, so collect as much data as possible from other sources, including: the reports and photos of responding officers; maintenance records; and any investigative data you can get your hands on that was collected by the defense.

Stopping Distance - Truck Speed

Probably the single most important factor in determining stopping distance for a tractor-trailer is the traveling speed. Quite simply, the faster a truck is traveling, the greater the stopping distance. *Stopping* distance, however should not be confused with *braking* distance. The braking distance for a truck is the measurement of how far a truck travels *after the brakes are applied*. Before a trucker can apply the brakes, though, he or she must first *perceive* a hazard, and then *react* (i.e., put the foot on the brake pedal). Although perception and reaction time is relatively short, at highway speeds a tractor-trailer will travel a significant distance during this seemingly small time period.

It takes an alert driver about 1½ seconds to perceive a hazard and then react to it.¹³ This means that at 55 mph, a vehicle will travel approximately 120 feet in the 1½ seconds it takes before braking begins—almost half the illumination distance of typical low beam headlights. Using this perception to reaction time of an alert driver, the table below illustrates typical stopping distances for a tractor trailer operating at various speeds:

¹¹ CDL Manual at §2.11.4

¹² When investigating whether a trucker's high beams or low beams were on, keep in mind that truckers are trained to drive with their high beams on whenever possible. *See* CDL Manual at §2.11.5. At the same time, truck drivers told "[w]hen you must use low beams, slow down." *Id.* at §2.6.4.

¹³ *Id.* at § 2.6.1.

Stopping Distance (Perception + Reaction + Braking = Total Stopping Distance)

MPH	Perception Distance ¹⁴	Reaction Distance ¹⁵	Braking Distance ¹⁶	Total Stopping Distance
30	33 ft.	33 ft.	115 ft.	181 ft.
45	50 ft.	50 ft.	260 ft.	360 ft.
50	55 ft.	55 ft.	320 ft.	430 ft.
55	61 ft.	61 ft.	390 ft.	512 ft.

As the chart above illustrates, as the speed of a commercial motor vehicle increases, braking distance increases dramatically. Doubling the travel speed increases the stopping distance by about a factor of four.¹⁷ The chart above also illustrates that an operator driving a tractor-trailer at 55 mph with high beams illuminating 500 feet *is over driving the headlights* by twelve feet.

Since the speed of the tractor-trailer has such a substantial impact on the overall stopping distance, establishing the trucker's speed—or even the approximate speed—is crucial. The Electronic Data Recorder, satellite tracking systems, and other electronic data storage devices are some of the first places you will want to look to determine a trucker's speed. However, do not overlook the testimony of a truck driver to approximate the truck's traveling speed—you may be surprised at what you get. Absent electronically recorded data or favorable testimony, have your accident reconstruction expert evaluate skid marks, yaw marks, or any other physical evidence from the scene to come up with a speed estimate.

Effect of Driver Fatigue on Stopping Distance

It is important to understand that the perception and reaction distances in the chart above are the typical numbers of an *alert driver*. Therefore, when establishing the stopping distance of a tractor-trailer, use the 1½ second perception-reaction time figure as your *starting point*. Then

¹⁴ The distance traveled during the approximately 3/4 second it takes for an alert driver's brain to perceive an object or hazard. *Id.* The perception and reaction distances in this chart are computed by multiplying as follows: speed (in mph) x 1.4667 = distance traveled (in feet per second).

¹⁵ The distance traveled during the approximately 3/4 second it takes an average driver to move his or her foot to the brake pedal and apply the brakes. *Id.*

¹⁶ Once the operator has applied his or her foot to the brake pedal, this figure represents the distance traveled before the rig comes to a complete stop. *Id.* The braking distances in this chart are taken from figure 2.11 of the CDL Manual, and do not account for the many other factors (such as tractor-trailer weight, road conditions, mechanical conditions of the truck, etc.) that can alter the braking distance. See discussion, *infra*.

¹⁷ CDL Manual at §2.6.1.

carefully review all the records produced in discovery to determine if any other factors may have delayed perception or reaction time in your case, such as driver fatigue. The FMCSRs contain many provisions aimed at curtailing commercial vehicle operator fatigue.¹⁸ Driver fatigue is not an uncommon issue for truck drivers, especially during the night time hours. As the CDL Manual warns, “most people are less alert at night, especially after midnight . . . [and] may not see [i.e., perceive] hazards as soon or react as quickly.”¹⁹ If necessary, consult with a human factors expert to tangibly illustrate the effect of driver fatigue on perception and reaction time in your case.

Stopping Distance - Truck Weight

Aside from speed, the weight of the tractor-trailer combination is also an important factor in determining stopping distance. This is where the Plaintiff’s lawyer practically has the best of both worlds. On the one hand, the heavier a truck, the greater the momentum, and therefore, the greater the stopping distance.²⁰ On the other hand, however, the braking systems in tractor-trailer combinations are designed to be most effective when the truck is carrying a full load.²¹ If the trucker is hauling an empty trailer or “bob-tailing,” however, the brakes do not work as well. The tractor-trailer has decreased traction because it is much lighter, which results in increased skidding and stopping distance.²²

In most cases, determining the weight of the tractor-trailer will be a relatively simple proposition. The weights of the tractor and the trailer are readily available from a variety of sources, such as manufacturer product data. The weight figures will vary, obviously, depending on the cargo, but tractor configuration, fuel level, etc., may also affect the weight. Your accident reconstruction expert can approximate the weight fairly easily, and your standard discovery request should include all tractor-trailer records related to weight and cargo.

Weather and Stopping Distance

It probably goes without saying that the stopping distance of a tractor-trailer will be significantly increased when the road is covered with snow, ice, or rain. Arguably, rainy weather is potentially the most dangerous for a large truck on the highway because it is seemingly the most benign weather condition. Wet weather, however, represents a very dangerous situation for tractor-trailer operators, largely because of its affect on stopping distance.

As a general rule, the typical stopping distance for a tractor-trailer is doubled on a rain-covered road.²³ Combining this rule with the stopping distance chart above, this means that a trucker

¹⁸ See, e.g., 49 C.F.R. §392.3 (Ill or Fatigued Driver), §395 (Hours of Service).

¹⁹ *Id.* at §2.11.1

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.* at §2.6.2

driving more than about 35 mph during rainy conditions is over driving the low beam headlights, and is also probably over driving the high beams.²⁴ Although it might seem absurd for a commercial vehicle operator to drive 35 mph on a highway during night time rain,²⁵ the state CDL Manual essentially makes that exact recommendation during *any* rainy condition: “Reduce speed by about one-third (e.g., slow from 55 mph to about 35 mph) on a wet road.”²⁶ The FMCRs support this recommendation with the requirement that truckers use “extreme caution” as warranted in all situations, including adverse weather conditions.²⁷

Identifying Other Night Time Driving Issues

The State CDL Manuals are full of a variety of rules that can be applied to the night time operation of a commercial motor vehicle. Although the portions of the CDL manuals that deal directly with night driving contain some good rules, be sure to explore the other sections of the manual, too. Many of the CDL Manual’s more general provisions can be equally applied to the operation of a commercial motor vehicle at night. For example, the preceding discussion on driving in wet conditions is a good illustration of how a “general” trucking rule can be used in a night driving case.

Similarly, the sections dealing with roadway hazards may also provide some useful rules for a night time truck collision. If your case involves a trucker over driving his or her headlights, the chances are probably pretty good that the trucker collided with an unexpected roadway hazard. The manuals provide various examples and recommendations for dealing with a variety of roadway hazards, many of which could easily occur at night. In other words, review carefully the specific facts of your case in conjunction with the state CDL Manual for *all* possible rules of the road you can apply to your night time driving case.

Conclusion

In short, operating a commercial motor vehicle on a roadway is dangerous in and of itself; doing

²⁴ Over driving the high beams in this scenario is likely because the trucker probably cannot see the full illuminated distance of the high beam headlights during night time rain conditions.

²⁵ Absurd only because it is probably rare that anyone will encounter a trucker driving 35 mph on a highway when it is raining.

²⁶ On snow-covered roads, a truck driver should reduce his or her speed by about half, and should drive at the speed of a “crawl” during icy conditions only as long as necessary to safely stop driving completely. *Id.*; See also 49 C.F.R. §392.14: “Speed shall be reduced when such [adverse weather] conditions exist. If conditions become sufficiently dangerous, the operation of the commercial motor vehicle shall be discontinued . . .”

²⁷ 49 C.F.R. §392.14: “Extreme caution in the operation of a commercial motor vehicle shall be exercised when hazardous conditions, such as those caused by snow, ice, sleet, fog, mist, rain, dust, or smoke, adversely affect visibility or traction. Speed shall be reduced when such conditions exist.”

it at night is even worse. For most states, the CDL Manual Section covering night driving starts with the following admonition: “**Driving at Night . . . It’s More Dangerous .**”²⁸ Make this your first rule for every night time interstate trucking case.

²⁸ *Id.* at §§2.11, 2.11.1.