
White Paper

An Emerging Standard of Care Requiring Commercial Driver Screening for Sleep Apnea?

Practical Considerations and Risk Management Strategies for the Trucking Industry

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EXECUTIVE SUMMARY

This White Paper explores the risk of obstructive sleep apnea (OSA) in the commercial driver community and the characteristics of what may be an emerging standard of care requiring commercial truck operators to screen and treat drivers for OSA. Highlights of this White Paper are provided in this Executive Summary. Details are included in the pages that follow.

The Environment

An estimated 10 million commercial drivers are licensed to drive more than 8 million large trucks that travel over 225 million miles annually throughout the United States. These trucks and drivers were involved in approximately 5,000 fatal crashes and another 82,000 injury crashes in 2005 and a large percentage of these crashes may have been caused by commercial drivers falling asleep at the wheel as a result of OSA. OSA affects an estimated 2.4 to 6 million commercial drivers, causes excessive sleepiness, and creates a serious public safety risk of sleep-related motor vehicle crashes.

The Prevalence of OSA in Commercial Truck Drivers

It is estimated that, of the 10 million commercial drivers now operating in the U.S., between 24 and 60 percent suffer from obstructive sleep apnea. These results suggest that between 2.4 and 6.0 million commercial drivers operating on the nation's highway have some form of sleep apnea or sleep disordered breathing.

Crash Risks Associated with Sleep Commercial Drivers

In 2005 large trucks were involved in nearly 5,000 fatal crashes and 82,000 injury crashes in the U.S. These crashes resulted in over 5,200 deaths and nearly 115,000 injuries. If 25 percent of these crashes are sleep related, approximately 1,250 large truck fatal crashes and over 20,000 large truck injury crashes that occurred in 2005 may be attributable to sleep apnea or sleep disordered breathing conditions affecting commercial drivers.

Laws Governing Commercial Driver Safety and Sleep Apnea

Federal statutes, regulations, and medical advisory guidelines establish a binding legal framework governing the licensing and operation of commercial motor vehicles. This framework provides that, given the well known public safety risks associated with the condition, drivers should be screened for sleep apnea and those with suspected or diagnosed sleep apnea must be treated as a condition of continued licensure.

Court Cases Involving Crashes Caused by Drivers with Sleep Apnea

A number of court cases involving sleep apnea related crashes illustrate the potential legal consequences flowing from this public safety risk. Principles articulated in these cases

highlight the chronic nature of OSA with symptoms that manifest over a considerable period of time. Thus, commercial drivers, and their employers, are deemed by the courts to be on notice of, and responsible for the consequences resulting from crashes associated with drivers falling asleep at the wheel as a result of OSA. Sensing this issue as an emerging area ripe for litigation, a growing number of plaintiff's law firms are actively soliciting sleep apnea crash clients.

Grass Roots Organizations

Several grass roots organizations have formed that focus on trucking industry safety and sleepy drivers. These groups are likely to raise awareness about this issue which may lead to additional legislation, greater issue awareness in the legal community and more lawsuits.

Trucking Industry Practices

Industry practices influence how and when standards of care emerge for particular types of conduct affecting specific industries. A standard of practice in the trucking industry is beginning to develop with regard to the screening and treatment of truck drivers for sleep apnea.

Risk Management Strategies for the Trucking Industry

In light of this emerging standard of care, it is incumbent on the trucking industry to develop and implement risk management strategies designed to reduce liability risks associated with commercial driver sleep apnea. Such strategies should include:

- Educating drivers about sleep apnea, its causes and its treatment;
- Screening drivers for sleep apnea at the time of hire and periodically, including required completion of sleep related questionnaires; assessments of risk factors such as obesity, age, neck circumference, hypertension, cardiovascular disease and diabetes; and the use of more definitive sleep studies where indicated;
- Referring drivers at suspected risk for sleep apnea to qualified medical practitioners for further evaluation and treatment planning as indicated by initial screening; and
- Requiring drivers with diagnosed sleep apnea to follow prescribed treatment regimens such as daily use of continuous positive airway pressure (CPAP) devices and regularly monitor drivers for compliance.

Being aware of and managing risks associated with commercial driver sleep apnea helps the trucking industry, commercial truck drivers and society.

SCOPE OF THIS WHITE PAPER

An estimated 10 million commercial drivers are licensed to drive more than 8 million large trucks that travel over 225 million miles annually as they operate in the United States.^{1,2} These trucks and drivers were involved in approximately 5,000 fatal crashes and another 82,000 injury crashes in 2005. Between 20-30 percent of these crashes may have been caused by commercial drivers falling asleep at the wheel as a result of a medical condition known obstructive sleep apnea (OSA). OSA affects an estimated 2.4 to 6 million commercial drivers, causes excessive sleepiness, and creates a serious public safety risk of sleep-related motor vehicle crashes. OSA is a treatable condition and treatment significantly reduces the risk of sleep-related crashes.

This White Paper explores the risk of OSA in the commercial driver community and the characteristics of what may be an emerging standard of care requiring commercial truck operators to screen and treat drivers for OSA. Specifically, this paper explores the following subjects:

- the definition of an industry “standard of care” and factors influencing its emergence;
- the nature of OSA;
- prevalence of OSA in the commercial truck driver population;
- U.S. laws and regulations governing commercial truck driver safety and OSA;
- potential public safety and legal consequences of failing to identify and treat OSA; and
- industry benefits and risk management strategies associated with OSA and commercial truck drivers.

SLEEP APNEA, TRUCK DRIVERS AND THE STANDARD OF CARE

The concept of a “standard of care” relates to a community’s expectations when gauging one person’s or organization’s conduct towards another. The “community” expresses its views through trial judges, juries and appellate courts considering negligence lawsuits.

¹ Commercial Truck and Bus Driver Facts, Federal Motor Vehicle Carrier Association. Available at www.fmcsa.dot.gov/facts-research/facts-figures/analysis-statistics/driverfacts.htm

² Commercial Motor Vehicle Facts, Federal Motor Vehicle Carrier Association, available at www.fmcsa.dot.gov/facts-research/facts-figures/analysis-statistics/cmvfacts.htm;

Traffic Safety Facts, National Highway Traffic Safety Administration, available at [www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/810619.pdf](http://www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/810619.pdf)

Grocery stores illustrate one example of a standard of care. Individuals injured when slipping and falling on water left on the floor in produce isles began suing grocery stores claiming negligence for the presence of the water. Over time, courts and juries agreed that stores had an obligation to immediately remove the water in order to prevent slip and fall risks and injuries. The absence of water on the floor of produce isles has emerged as a community expectation or standard of care.

The term “standard of care” is synonymous with the term “duty” under negligence principles. “Duty” in negligence law is defined as “an obligation, to which the law will give recognition and effect, to conform to a particular standard of conduct toward another.”³ The “standard of care” is defined as “[w]hat the defendant must do, or must not do ... to satisfy the duty.” If a legal duty is found to exist, it is possible for liability to be imposed. In the absence of a legal duty, no liability can be imposed.

In light of growing evidence of the prevalence of sleep apnea among truck drivers, and the associated risks of sleep related crashes and resulting deaths and injuries, the question is whether a standard of care is now emerging that requires the trucking industry to screen and treat drivers for the condition of obstructive sleep apnea.

A variety of influences guide the emergence of a standard of care. The following constellation of external factors have and will continue to influence the nature, characteristics and evolution of a sleep apnea screening standard of care in the trucking industry:

- Nature of sleep apnea and its prevalence in commercial truck drivers;
- Crash risks associated with sleepy truck drivers;
- Statutes and regulations governing commercial vehicle operations;
- Courts and lawyers involved in sleep apnea related crash cases;
- Grass roots organizations;
- Industry practices.

In the sections that follow this White Paper examines these factors with the goal of helping the trucking industry better understand and manage the risks associated with this important public safety and legal issue.

³ W. Page Keeton et al., Prosser and Keeton on the Law of Torts § 53, at 356 (5th ed. 1984)

NATURE OF OBSTRUCTIVE SLEEP APNEA

Obstructive sleep apnea is a medical condition which causes the airway to collapse during sleep thereby blocking a person's ability to breathe. Individuals with this condition experience partial or complete upper airway obstruction during sleep that results in sleep disruption and other physiologic changes. When this condition occurs, the person's "fight or flight" sympathetic nervous system is triggered, which releases adrenalin, races the heart, contracts the vessels and arteries, and causes an interruption or lightening of sleep so that breathing can resume. As a result, persons experiencing sleep apnea do not reach deeper stages of restorative sleep and are in a state of continuous sleep deprivation. This is true despite spending adequate amounts of time in bed sleeping.

Symptoms of sleep apnea may include excessive fatigue, excessive daytime sleepiness, a tendency to fall asleep at inappropriate times such as in meetings, during conversations or while driving, and loud snoring. Risk factors that may indicate the presence of OSA include, among other factors, obesity (e.g., a body mass index > 26 kg/m²), age, neck circumference (e.g., > 17 inches in men and > 16 inches in women), hypertension, cardiovascular disease and diabetes. A variety of subjective and objective tools are available to help medical examiners identify those individuals with sleep apnea.⁴

PREVALENCE OF OBSTRUCTIVE SLEEP APNEA IN COMMERCIAL TRUCK DRIVERS

An estimated 10 million commercial drivers now operate trucks and buses in the U.S.¹ Various studies have examined the prevalence of sleep apnea in this group of drivers.

One study evaluated 1,391 randomly selected truck drivers operating within a 50 mile radius of the University of Pennsylvania.⁵ Researchers found that 28.1 percent of the drivers had some form of sleep apnea. Degrees of sleep apnea included mild (17.6 percent), moderate (5.8 percent) and severe (4.7 percent). Two major factors – age and degree of obesity – were identified as reliable predictors of sleep apnea in the study population.

⁴ Hartenbaum N, Collop N, Rosen IM, Phillips B, George CF, Rowley JA, Freedman N, Weaver TE, Gurubhagavatula I, Strohl K, Leaman HM, Moffitt GL; American College of Chest Physicians; American College of Occupational and Environmental Medicine; National Sleep Foundation. *Sleep Apnea and Commercial Motor Vehicle Operators: Statement From the Joint Task Force of the American College of Chest Physicians, the American College of Occupational and Environmental Medicine, and the National Sleep Foundation*, Chest 2006 130: 902-905.

⁵ Pack, Allen I.; Dinges, David F.; Maislin, Greg. *A Study of Prevalence of Sleep Apnea Among Commercial Truck Drivers*, FMCSA, Publication No. DOT-RT-02-030, Washington, DC, 2002.

In another study, 90 commercial long-haul truck drivers were evaluated for sleep apnea. Researchers found that 46 percent of the drivers experienced abnormal breathing during sleep (a symptom of sleep apnea).⁶

Another study involved approximately 3,500 randomly selected commercial vehicle drivers in Australia.⁷ Researchers found that 24.1 percent of drivers suffered from chronic excessive sleepiness, 15.8 percent had obstructive sleep apnea, and 59.6 percent had some form of sleep disordered breathing (34.8 percent mild, 14.3 percent moderate and 10.6 percent severe).

These and other similar studies estimate a widely varying prevalence range of sleep disorders in truck drivers but in all cases the percentage of drivers experiencing the condition is significant. Prevalence rates fall between a low of 24 percent and a high of nearly 60 percent. These results suggest that between 2.4 and 6.0 million of the estimated 10 million licensed commercial drivers operating on the nation's highways have some form of sleep apnea or sleep disordered breathing.

A common observation in the literature is the industry-wide prevalence of obesity, hypertension, large neck size, irregular hours, and males over 40 years of age found in the truck driver community. These factors appear to predispose truck drivers to the high incidence rates of OSA noted above.

CRASH RISKS ASSOCIATED WITH SLEEPY COMMERCIAL DRIVERS

Increased accident risk has long been associated with commercial motor vehicle drivers who suffer from sleep apnea or other forms of sleep disordered breathing. Following are key research highlights:

- Commercial truck drivers with sleep disordered breathing were found to cause twice as many accidents as those without the condition⁶
- Between 20 and 30 percent of accidents involving commercial truck drivers are sleep-related; sleep disordered breathing contributes to excessive sleepiness and is associated with an increased crash risk⁷

⁶ Stoohs RA, Bingham LA, Itoi A, Guilleminault C, Dement WC. *Sleep and sleep-disordered breathing in commercial long-haul truck drivers*. Chest. 1995;107:1275–1282.

⁷ Howard ME, Desai AV, Grunstein RR, Hukins C, Armstrong JG, Joffe D, Swann P, Campbell DA, Pierce RJ. *Sleepiness, sleep disordered breathing and accident risk factors in commercial vehicle drivers*. Am J Respir Crit Care Med 2004;170:1014–1021.

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- Individuals with sleep apnea – and most notably, even those with a mild form of sleep apnea – are 3 to 5 times more likely to have a serious or head-on crash leading to personal injury⁸
 - Multiple studies suggest that individuals with sleep apnea are at 3 to 7 times greater risk of causing a crash than those without the condition and this risk may be present even in those with a mild form of sleep apnea⁵

In 2005 large trucks (GVW greater than 10,000 pounds) were involved in nearly 5,000 fatal crashes and 82,000 injury crashes in the U.S. These crashes resulted in over 5,200 deaths and nearly 115,000 injuries.⁹ Assuming 25 percent of these crashes are sleep related,⁷ approximately 1,250 large truck fatal crashes and over 20,000 large truck injury crashes that occurred in 2005 may be attributable to sleep apnea or sleep disordered breathing conditions affecting commercial drivers.

The following examples illustrate the impact of crashes caused by commercial drivers with sleep apnea falling asleep while operating commercial motor vehicles:

Incident: Work zone collision between a tractor-semitrailer and a highway patrol vehicle¹⁰

Location: Jackson, Tennessee

Date: July 26, 2000

Description: On July 26, 2000, an eastbound truck tractor pulling a loaded semitrailer, and traveling at a driver-estimated speed of 65 mph in a 55-mph work zone, collided with a highway patrol vehicle trailing construction vehicles. The tractor-semitrailer continued through a 61-foot depressed earthen median and into the westbound lanes, where it collided with a passenger vehicle. The state trooper in the highway patrol vehicle was killed, and the passenger vehicle driver was seriously injured.

Contributing cause: Truck driver falling asleep at the wheel as a result of previously diagnosed obstructive sleep apnea

⁸ Mulgrew A, Nasvadi G et al. *Severity of Motor Vehicle Crashes in Obstructive Sleep Apnea Patients*, American Thoracic Society 2007 International Conference, Session A30; Abstract # 1227; Poster Board # E2.

⁹ Traffic Safety Facts, National Highway Traffic Safety Administration, available at www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/810619.pdf

¹⁰ National Traffic Safety Board report NTSB/HAR-02/01, available at www.nts.gov/publicctn/2002/HAR0201.htm

Incident: Motorcoach run-off-the-road accident¹¹

Location: Tallulah, Louisiana

Date: October 13, 2003

Description: on October 13, 2003, a 49-passenger motorcoach carrying 14 passengers drifted rightward from the travel lanes and onto the shoulder where it struck the rear of a tractor semitrailer which was stopped on the shoulder. Eight motorcoach passengers sustained fatal injuries and the motorcoach driver and six passengers received serious injuries.

Contributing cause: Motor coach driver falling asleep or becoming drowsy at the wheel. The driver suffered from multiple medical conditions including obstructive sleep apnea.

Incident: Collision of two railway trains¹²

Location: Clarkston, Michigan

Date: November 15, 2001

Description: On November 15, 2001, two trains collided near Clarkston, Michigan. One train was operating in a southward direction traveling at 13 mph when it struck the other train. A signal at the turnout for the siding where the collision occurred displayed a stop indication, but the first train did not stop before proceeding onto the mainline track. The other train was operating northward on a proceed signal at about 30 mph when the trains collided. Both crewmembers of the second train were fatally injured; the two crewmembers of the first train sustained serious injuries. The total cost of the accident was approximately \$1.4 million.

Contributing cause: Chronic fatigue of the train engineer due to untreated obstructive sleep apnea likely incapacitated him to the extent that he did not take any action to stop the train before the collision. The engineer of the other train was also found to have undiagnosed sleep apnea.

¹¹ National Traffic Safety Board report HAR-05/01, available at www.nts.gov/publictn/2005/HAR0501.htm

¹² National Traffic Safety Board report RAR-02/04, available at www.nts.gov/publictn/2002/RAR0204.htm

The public safety risks associated with sleep apnea in commercial truck drivers is considerable. A large number of drivers have sleep apnea and many fall asleep at the wheel. This creates a high probability of death or serious injury.

STATUTES AND REGULATIONS GOVERNING COMMERCIAL DRIVER SAFETY AND SLEEP APNEA

Commercial motor vehicle drivers (commercial drivers) are licensed by states but operate under comprehensive federal statutes and regulations. Safety is perhaps the highest priority element of the many subjects addressed by these laws. The most important statute is the federal Commercial Motor Vehicle Safety Act of 1986¹³ (CMVSA). The CMVSA was enacted in 1986 to improve highway safety by ensuring that drivers of large trucks and buses are qualified to safely operate those vehicles. The CMVSA established minimum national standards which states must follow when licensing commercial drivers.

When it passed the CMVSA, Congress stated its specific intent to promote the safe operation of commercial motor vehicles, ensure increased compliance with commercial motor vehicle safety and health regulations and standards, and thereby reduce the number of fatalities and injuries related to commercial motor vehicle operations.¹⁴ Among its many provisions, the CMVSA requires that:

- Every individual operating a commercial motor vehicle possess a valid commercial driver's license;¹⁵
- The Secretary of the U.S. Department of Transportation develop commercial motor vehicle safety regulations that include minimum safety standards designed to ensure "the physical condition of operators of commercial motor vehicles is adequate to enable them to operate the vehicles safely. . .";¹⁶ and
- The Secretary of the U.S. Department of Transportation establish a Medical Review Board to advise the Federal Motor Carrier Safety Administration (FMCSA) regarding the physical qualifications required for commercial drivers that ensure commercial motor vehicles will be operated safely¹⁷.

¹³ See Public Law 98-554 (October 30, 1984) and Public Law 99-570 (October 27, 1986)

¹⁴ 49 U.S.C.A. § 31131

¹⁵ 49 U.S.C.A. § 31302

¹⁶ 49 U.S.C.A. § 31136(a)(3)

¹⁷ 49 U.S.C.A. § 31149(a)(1) and 49 U.S.C.A. § 31149(c)(1)(A)(i)

Regulations adopted as required under the CMVSA specifically address the physical qualifications for drivers. The following provisions cover respiratory conditions that may impact a driver’s ability to safely operate a commercial motor vehicle:

Physical qualifications for drivers¹⁸

(a) A person shall not drive a commercial motor vehicle unless he/she is physically qualified to do so and . . . has on his/her person the original, or a photographic copy, of a medical examiner’s certificate that he/she is physically qualified to drive a commercial motor vehicle.

(b) A person is physically qualified to drive a commercial motor vehicle if that person —

* * *

(5) Has no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with his/her ability to control and drive a commercial motor vehicle safely.¹⁹

The following medical advisory information available from the FMCSA specifically identifies sleep apnea as a condition potentially impacting a driver’s ability to operate a vehicle safely.

FMCSA Medical Advisory Criteria – 49 CFR § 391.41(b)(5)²⁰

Since a driver must be alert at all times, any change in his or her mental state is in direct conflict with highway safety. Even the slightest impairment in respiratory function under emergency conditions (when greater oxygen supply is necessary for performance) may be detrimental to safe driving.

There are many conditions that interfere with oxygen exchange and may result in incapacitation, including . . . sleep apnea. If the medical examiner detects a respiratory dysfunction, that in any way is likely to interfere with the driver's ability to safely control and drive a commercial motor vehicle, the driver must be referred to a specialist for further evaluation and therapy.²¹ [Emphasis added.]

¹⁸ 49 CFR §391.41

¹⁹ 49 CFR §391.41(b)(5)

²⁰ Available at [www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/19961.htm#mrc391.41\(b\)\(5\)](http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/19961.htm#mrc391.41(b)(5))

²¹ FMCSA Note: Unlike regulations which are codified and have a statutory base, the recommendations in this advisory are simply guidance established to help the medical examiner determine a driver's medical qualifications pursuant to Section 391.41 of the Federal Motor Carrier Safety Regulations (FMCSRs). The Office of Motor Carrier Research and Standards routinely sends copies of these guidelines to medical examiners to assist them in making an evaluation. The medical examiner may, but is not required to, accept the recommendations. . . .

The FMCSA's Medical Advisory Criteria specifically relies upon a report from the 1991 U.S. Department of Transportation (DOT) Conference on Pulmonary/Respiratory Disorders and Commercial Drivers. This report was written following a DOT sponsored conference to develop medical standards for commercial motor vehicles driven by those with disorders of the lung and respiratory system. The conference convened an expert panel of 25 participants including pulmonary physicians, representatives of the motor carrier industry, and medical representatives affiliated with the trucking industry. The following recommendations from the expert panel highlight driver safety risks associated with obstructive sleep apnea.

**Conference on Pulmonary/Respiratory Disorders and Commercial Drivers
Recommendations Regarding Obstructive Sleep Apnea**

Individuals with suspected or untreated sleep apnea (symptoms of snoring and hypersomnolence) should be considered medically unqualified to operate a commercial vehicle until the diagnosis has been dispelled or the condition has been treated successfully. In addition, as a condition of continuing qualification, commercial drivers who are being treated for sleep apnea should agree to continue uninterrupted therapy as long as they maintain their commercial driver's license. They should also undergo yearly multiple sleep latency testing (MSLT).²²

Finally, other regulations specifically govern the hiring of commercial drivers and the driving of commercial motor vehicles. The scope of this series of regulations provides that:

Every motor carrier, its officers, agents, representatives, and employees responsible for the management, maintenance, operation, or driving of commercial motor vehicles, or the hiring, supervising, training, assigning, or dispatching of drivers, shall be instructed in and comply with the rules in this part.²³

With regard to fatigued drivers, the regulations specifically state:

No driver shall operate a commercial motor vehicle, and a motor carrier shall not require or permit a driver to operate a commercial motor vehicle, **while the driver's ability or alertness is so impaired, or so likely to become impaired, through fatigue,** illness, or any other cause, as to make it unsafe

²² Conference on Pulmonary/Respiratory Disorders and Commercial Drivers, May 1991 (Publication No. FHWA-MC-91-004). Available at www.fmcsa.dot.gov/documents/pulmonary1.pdf.

²³ 49 CFR § 392.1

for him/her to begin or continue to operate the commercial motor vehicle.²⁴
[Emphasis and italics added.]

These federal statutes and regulations establish a binding legal framework governing the licensing and operation of commercial motor vehicles. This framework provides that, given the well known public safety risks associated with the condition, drivers should be screened for sleep apnea and those with suspected or diagnosed sleep apnea must be treated as a condition of continued licensure.

Because the public safety risks of sleepy truck drivers is now well known, policy makers may take steps to specifically enhance laws in this area. The State of New York, for example, introduced legislation in the 2007 session that would, if enacted, require that all commercial truck drivers be screened for sleep apnea and that a commercial driver's license be denied or suspended until any diagnosed sleep apnea condition is successfully treated.²⁵

COURT CASES INVOLVING CRASHES CAUSED BY DRIVERS WITH SLEEP APNEA

The following case summaries illustrate the litigation and criminal consequences that can result when crashes occur because of sleep apnea or sleep disordered breathing conditions:

Dunlap v. Logan Trucking Company:²⁶ This case involves a truck driver who, while travelling in a construction zone, drove his tractor-trailer into oncoming traffic striking another vehicle head-on killing the other vehicle's driver. Evidence in the case showed that the truck driver falling asleep at the wheel was one contributing cause of the accident.

The truck driver argued he was not negligent under what is called the "sudden-medical emergency" defense. This defense excuses consequences that result when a driver is "suddenly stricken by an unanticipated period of unconsciousness." To qualify for this defense, the driver must show that he had no reason to anticipate or foresee the sudden loss of consciousness.

²⁴ 49 CFR § 392.3

²⁵ New York House Bill 970, introduced 1/3/2007

²⁶ Dunlap v. Logan Trucking Company, 161 Ohio App.3d 51, 829 N.E.2d 356 (2005)

Evidence presented at the trial showed that, prior to the accident, the driver:

- had a propensity to fall asleep at unpredictable times while engaged in such activities as when standing up and leaning against a wall, while playing cards, or while conversing at parties;
- slept poorly at night, averaging only three hours of sleep per night;
- often needed to pull over and rest while on his route;
- had fallen asleep while driving on at least one other occasion.

One doctor who testified at trial indicated that these factors, coupled with the driver's heavy body build, elevated blood pressure and nasal congestion, are all common characteristics of sleep apnea. While the driver had not been previously diagnosed with sleep apnea, the court found that the driver knew he had some sort of health problem that could interfere with the safe operation of a truck. The court thus concluded that the truck driver did not qualify for the sudden-medical emergency defense because he knew or should have known that falling asleep at the wheel was a potential risk given his health conditions. Both the truck driver and his employer were therefore found partially liable for the accident.

Kollerbohm v. County of Los Angeles:²⁷ This case involves a sheriff's deputy who fell asleep at the wheel of his patrol vehicle and ran into the back of the plaintiff's vehicle at 60 miles per hour causing injuries. At the time of the crash, the plaintiff's vehicle was stopped in traffic on a freeway.

As in the Dunlap case, the deputy argued he was not negligent because he experienced an illness he had no reason to anticipate. Evidence at trial showed that the deputy felt tired, run down and fatigued for at least a year prior to the accident. During this period, the deputy experienced excessive daytime sleepiness, loud snoring and, once or twice a month, would "come to' or suddenly become alert and was found doing things without being aware of having started them or how they got there." After the accident, the deputy was diagnosed with obstructive sleep apnea.

Based on the evidence the court found that the deputy was negligent because he could have, and should have, reasonably anticipated falling asleep at the wheel. The court rejected the deputy's defense that his falling asleep at the wheel was a sudden, unexpected occurrence. The deputy and county were therefore found liable for the injuries caused by the deputy's sleep related crash.

²⁷ Kollerbohm v. County of Los Angeles, 2007 WL 646244 (Cal.App. 2 Dist.)(2007)

People v. Wilson:²⁸ This case involves an automobile driver who fell asleep at the wheel, crossed the centerline and collided head-on with another vehicle killing one of the other vehicle's occupants. The defendant driver appealed his criminal reckless homicide conviction claiming he had not acted recklessly.

Evidence presented at trial included the results of a medical examination performed on the defendant driver after the accident. A physician diagnosed severe sleep apnea after finding that the defendant would stop breathing for intervals of up to 1½ minutes during the night, would never get much rest, and would become drowsy and fall asleep during the day. The defendant reported that these conditions had existed for a number of years and had gotten worse recently as he gained significant weight.

The court was called upon to determine whether the driver's actions which caused the death "were performed recklessly so as to create a likelihood of death or great bodily harm to some person." The term "recklessness" is defined in the case as follows:

A person is reckless or acts recklessly, when he consciously disregards a substantial and unjustifiable risk * * *; and such disregard constitutes a gross deviation from the standard of care which a reasonable person would exercise in the situation.

Applying this standard, the court concluded that evidence of the defendant driver's sleep disorder supported a finding he acted recklessly. Given his symptoms, the court found that "the defendant was aware of his sleep disorder, if not its formal name, for years prior to the collision in question." He was thus on notice of the risk that he could fall asleep while driving and cause a serious accident. The court therefore upheld the defendant's conviction and three year prison sentence.

A number lessons emerge from legal cases involving sleep apnea. Perhaps the most important is that sleep apnea is not an acute, sudden onset condition. Rather, it is a condition that manifests symptoms over a considerable period of time. Commercial drivers with these symptoms, and their employers, are deemed by the courts to be on notice of, and responsible for the consequences resulting from, the crash risks associated with falling asleep at the wheel. This is true whether or not commercial drivers have been formally diagnosed with sleep apnea.

²⁸ People v. Wilson, 143 Ill.2d 236, 572 N.E.2d 937, 157 Ill.Dec. 473 (1991).

Another lesson suggested by the cases is that commercial motor vehicle operators can reduce their liability risks by actively screening drivers for sleep apnea and offering treatment for the condition. Put another way, it appears the failure to screen creates a higher degree of risk since a formal sleep apnea diagnosis is not required for a plaintiff to establish liability. It is clearly better and less risky to identify and treat the condition before a crash occurs.

Sensing this issue as an emerging area ripe for litigation, a number of plaintiff's law firms are actively soliciting sleep apnea crash clients. One firm's website highlights the dangers of sleep apnea in truck drivers and includes the following call to action: "If you have been the victim of a truck accident, contact [law firm] immediately to protect your rights. Act now, as delays can harm your case."²⁹ Another positions itself as a firm of "truck accident attorneys".³⁰ An internet search finds many law firms soliciting these kinds of cases thus bringing greater scrutiny to truck crash related injuries.

GRASS ROOTS ORGANIZATIONS

Several grass roots organizations have been formed that focus on issues associated with truck safety. The Truck Safety Coalition, for example, was created as a partnership between The Citizens for Reliable and Safe Highways (CRASH) Foundation, and Parents Against Tired Truckers (P.A.T.T). One of the group's aims is to reduce the number of deaths and injuries caused by truck-related crashes through activities such as education and legislative advocacy.³¹

Groups such as these, and others that will likely form in the future, tend to raise awareness about truck safety, including the risks of sleep apnea in truck drivers. This may lead to additional legislation, greater awareness of this issue among the legal community, and more lawsuits scrutinizing the causes of truck crashes.

INDUSTRY PRACTICES

Industry practices influence how and when standards of care emerge for particular types of conduct affecting specific industries. A standard of practice in the trucking industry is beginning to develop with regard to the screening and treatment of truck drivers for sleep apnea. For example, Schneider National, Inc., of Green Bay, Wisconsin, one of the largest

²⁹ See, www.alexanderlaw.com/truck-accident-lawyers-california/truck-accidents.html

³⁰ See, www.speakerlawfirm.com/truck-accidents.html

³¹ See, www.trucksafety.org

trucking companies in North America, recently initiated a program to screen and treat its drivers for sleep apnea.³² In a March 2007 press release announcing the company's receipt of the National Sleep Foundation's 2007 Healthy Sleep Community Award, a Schneider safety executive is quoted as saying:

"Ideally, we expect our program will serve as a model for the entire trucking industry. The industry needs to generate awareness of this problem, educate drivers to the dangers of untreated sleep apnea, provide resources to help them get treated and ultimately make the roads safer for everyone."

Other trucking companies are considering similar initiatives and are likely to follow Schneider's example in the near future.

SLEEP APNEA IS A TREATABLE CONDITION AND TREATMENT REDUCES CRASH RISK

Sleep apnea and sleep disordered breathing conditions in commercial truck drivers are common, diagnosable and treatable. Proven effective therapies for sleep apnea patients are quite capable of reversing the symptom of sleepiness and reducing the risk of sleep related crashes.

The most common and effective therapy for sleep apnea is continuous positive airway pressure (CPAP).^{4,5} CPAP involves air delivered under low pressure through a mask worn by the patient during sleep. The pressure supplied through the mask pushes the airway open and prevents narrowing and closure of the airway that would otherwise occur during sleep. In effect, CPAP therapy acts as a kind of "pneumatic splint" that prevents the upper airway soft tissue from collapsing. There are few side effects associated with CPAP therapy and none of these are major. **Studies have demonstrated that CPAP therapy reduces the risk of motor vehicle crashes in those individuals with sleep apnea.**^{33,34,35,36}

³² See, www.schneider.com/news/Final_NSF_Award_Release.html

³³ Hack M, Davies RJ, Mullins R, Choi SJ, Ramdassingh-Dow S, Jenkinson C, Stradling JR. *Randomised prospective parallel trial of therapeutic versus subtherapeutic nasal continuous positive airway pressure on simulated steering performance in patients with obstructive sleep apnea.* Thorax. 2000 Mar;55(3):224-31.

³⁴ Findley L, Smith C, Hooper J, Dineen M, Suratt PM. *Treatment with nasal CPAP decreases automobile accidents in patients with sleep apnea.* Am J Respir Crit Care Med. 2000 Mar;161(3 Pt 1):857-9.

³⁵ Cassel W, Ploch T, Becker C, Dugnus D, Peter JH, von Wichert P. *Risk of traffic accidents in patients with sleep-disordered breathing: reduction with nasal CPAP.* Eur Respir J. 1996 Dec;9(12):2606-11.

³⁶ Yamamoto H, Akashiba T, Kosaka N, Ito D, Horie T. *Long-term effects nasal continuous positive airway pressure on daytime sleepiness, mood and traffic accidents in patients with obstructive sleep apnea.* Respir Med. 2000 Jan;94(1):87-90.

In addition to CPAP, other therapies are available to treat sleep apnea. These include use of an intra-oral device during sleep and surgery. Neither approach has been shown to be as effective as CPAP and no data is yet available evaluating the effects of these therapies on crash risk.⁵

RISK MANAGEMENT STRATEGIES DESIGNED TO ADDRESS SLEEP APNEA IN THE TRUCKING INDUSTRY

There are clear indications of an emerging standard of care requiring commercial truck operators to screen and treat drivers for obstructive sleep apnea. Factors supporting this conclusion include:

- A well documented and industry recognized high prevalence of sleep apnea and sleep disordered breathing conditions among truck drivers;
- A well known high risk of motor vehicle crashes involving commercial drivers falling asleep at the wheel as a result of sleep apnea leading to significant injury and death;
- A federal statutory and regulatory framework requiring that commercial drivers be screened and treated for dangerous respiratory disorders as a condition of licensure;
- Courts and juries imposing civil liability and criminal sanctions flowing from sleep apnea caused crashes;
- Efforts of grass roots organizations to raise awareness about commercial driver safety among the public, the legal community and policy makers; and
- Emerging industry practices designed to screen and treat commercial drivers for sleep apnea.

In light of this emerging standard of care, it is incumbent on the trucking industry to develop and implement risk management strategies designed to reduce liability risks associated with commercial driver sleep apnea. Such strategies should include:

- Educating drivers about sleep apnea, its causes and its treatment;
- Screening drivers for sleep apnea at the time of hire and periodically, including required completion of sleep related questionnaires; assessments of risk factors such as obesity, age, neck circumference, hypertension, cardiovascular disease and diabetes; and the use of more definitive sleep studies where indicated;

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- Referring drivers at suspected risk for sleep apnea to qualified medical practitioners for further evaluation and treatment planning as indicated by initial screening; and
 - Requiring drivers with diagnosed sleep apnea to follow prescribed treatment regimens such as daily use of continuous positive airway pressure (CPAP) devices and regularly monitor drivers for compliance.

Implementing these strategies can significantly reduce sleep apnea related liability risks facing the trucking industry. Additional benefits include:

- Increased overall highway safety;
- Reduced workers compensation, auto liability and physical damage losses resulting from sleep related crashes;
- Productivity gains on the part of drivers; and
- Better quality of life for drivers.

In sum, being aware of and managing risks associated with commercial driver sleep apnea helps the trucking industry, commercial truck drivers and society.