

Tanker Truck Involved in Deadly Crash on Interstate

Incident Number: 14KY007



Photo courtesy of Sentinel-echo reporter Rob McDaniel

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Kentucky Fatality Assessment and Control Evaluation (FACE) Program
Incident Number: 14KY007
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Subject: Tanker Truck Involved in Deadly Crash on Interstate

Summary

February 17, 2014, on a cloudy Monday, around 4:40 p.m., a 40 year-old male tanker truck driver (victim) was driving down a straight level 3-lane interstate headed north bound to a neighboring state going approximately 70 m.p.h., to deliver his 45, 000 lbs. of liquid sodium sulfate when he came upon a slow moving vehicle in the right lane, the victim swerved to the left to avoid the vehicle and his 2001 Kenworth tractor trailer left the road. The victim then overcorrected and his semi flipped landing on its top in the right side of the roadway in a grassy area with a rock cut ditch.

To prevent future occurrences of similar incidents, the following recommendations have been made:

Recommendation No. 1: Commercial motor vehicle drivers should avoid distracted driving to prevent resultant collisions and driver errors.

Recommendation No. 2: Commercial motor vehicle companies should consider using Defensive Driving training for their employees on an annual basis.

Recommendation No. 3: Commercial motor vehicle drivers should be trained to know the signs of fatigue and steps to take to eliminate driving while fatigued.

Introduction

Monday, February 17, 2014, the Kentucky Fatality Assessment and Control Evaluation program was notified by the local news of a fatal occupational incident involving a male 40-year-old tanker truck driver carrying a 45,000 lb. load of sodium sulfate. The tanker driver was heading northbound on a major interstate around 4:40 p.m., driving approximately 70 M.P.H., when he came upon a slow-moving vehicle in the right lane in front of him going approximately 55 m.p.h. The victim swerved to avoid the vehicle and his 2001 Kenworth tractor trailer left the roadway and overturned on its top. It is believed that the load the victim was hauling shifted as he swerved and was a contributing factor to this incident. 911 was called at 4:45 p.m. and arrived on the scene at 4:51p.m. Witnesses ran to the victim, but there was nothing they could do to help him. With the weight he was carrying and the force with which he crashed, the damage was too severe for him to have possibly survived.

Employer

The employer of the victim was a family-owned trucking company that had been in business for over 20 years, with 83 drivers that hauled general freight, liquid gases and chemicals. The company catered to government agencies as well as private industries. The company has 3 terminals in two states and they had a hazmat as well a non-hazmat tanker fleet. According to the Federal Motor Carrier Safety Administration (FMCSA) report, the company had a good safety record considering they run 87 trucks. The company drivers worked a 14 hour day with 11 hours of drive time and they kept logs. The log book for this incident was retained by the local law enforcement agency and not released for us to review. All tanker drivers must have previous tanker experience in order to be employed by this company.

Written Safety Programs and Training

The employer did have written safety programs and required tanker drivers to have prior experience before hiring on as drivers. There were two tanker schools the employer considered as good training schools and the company usually hired tanker drivers that had attended either of those schools. The victim had previous tanker experience prior to being hired and he also went through a week of orientation where standard operating procedures were discussed as well as policies, and safety.

Victim

The 40-year-old father of two had been employed with the company since June 2010. He resided in Alabama. The victim had some college but no formal degree and had moved through different positions within the company. He started as a company driver and then moved to dispatch. From dispatch, he worked in the safety department prior to buying his own tanker in December 2012 and driving for the employer. He was loved among his co-workers who spoke highly of him. They stated he was very involved with coaching his son and daughter's little league teams. He was a friend to all he met and bragged about his children and wife. He will be sadly missed by all whose lives he touched.

Incident Scene

The incident scene was a six-lane divided interstate in the northbound right-hand lane. The roadway was straight, level and dry.

Equipment

2001 Kenworth tractor trailer that was last inspected on 2/17/2014 prior to leaving his employer. There were no airbags installed on this particular model and there were not electronic stability control baffles installed as well.

Weather

On the day of the fatal incident, Monday, February 17, 2014, the temperature was 57 degrees Fahrenheit with overcasts skies but dry roadways.

Investigation

Monday morning, February 17, 2014, the 40-year- old male tanker driver (victim) picked up his load approximately 406 miles south of the crash site. The victim was approximately 6 hours into his 12 hour trip. It was a cloudy, overcast day around 4:45 p.m. and the victim was traveling north on a major interstate, with 3 lanes going northbound and 3 lanes going south bound. The speed limit in the area was 70 mph. The victim had just exited a northbound scale facility when he came upon slower moving traffic in the right-hand lane. To avoid the vehicle the victim swerved to his left. The 45,000 lb. load of sodium sulfate shifted in the tanker causing the victim to overcorrect/over steer his tanker which then caused the tanker to flip on its top on the right-hand side of the interstate in a grassy area with a rock cut ditch.

A witness and his passenger were broken down on the side of the road when the semi went flying past them, narrowly missing them by a few feet before flipping and crashing.

One witness stated he was traveling behind the victim for a short distance and reported he had passed the victim as he was leaving the scale facility. The witness stated he observed the victim in his rearview mirror swerve to avoid the slow moving vehicle in the right lane. The witness observed the victim leave the roadway, losing control and turning over.

Another witness who was traveling behind the victim stated he observed the victim leave the roadway and drive to the grassy area where he overturned. The witness stated that traffic did appear to be moving slower but was not able to see any direct cause of the crash.

Kentucky State Highway Patrol was notified of the incident at 16:40 p.m. and arrived at 16:51 p.m., 11 minutes after the crash. The KSHP determined there were no vehicular factors or environmental factors that contributed to this incident. The KSHP report stated the contributing factor to this incident was a human factor of overcorrecting/over steering. The victim was wearing his seat belt and had to be extricated by mechanical means and was not ejected. Airbags were not installed on this vehicle. Assisting on the scene were Vehicle Enforcement officers, County Fire Department, County EMS, County Rescue Squad, County Coroner's office as well as the County Emergency Management. The victim was pronounced dead on the scene by the county coroner and transported to the Coroner's office.

Cause of Death

The cause of death was fracture of cervical vertebrae and massive head trauma due to tractor tanker accident.

Recommendations/Discussions

Recommendation No. 1: Commercial motor vehicle drivers should avoid distracted driving to prevent resultant collisions and driver errors.

In 2009 a naturalistic driving study was conducted by the Department of Transportation. It was found that 82% of crashes, near-crashes, crash-relevant conflicts, and unintentional lane deviations were due to driver distraction. Slight distractions such as reaching for or dropping an object, or putting an object away and more involved distractions such as daydreaming, cell phone, on-board computer use, eating, drinking, reading a road map, smoking, or changing channels on the radio, could all lead to lethal driving errors. In this case, the driver swerving to avoid the slow moving vehicle in front of him denotes the driver may have been distracted enough he did not notice the other vehicle's speed until it was too late.

Fleet managers need to continue to educate and engage their drivers, and discuss the importance of being attentive at all times and avoid distractions, even the slightest such as removing a hat or glasses. These distractions can cause a critical safety event which could lead to a fatality. (Reference #2)

Recommendation No. 2: Commercial motor vehicle companies should consider using the training for their employees on an annual basis.

Defensive Driving teaches drivers five characteristics to defensive driving. The first is **Knowledge**. Drivers need to know all traffic laws and about their equipment. The second is **Alertness**. Drivers should be well rested, never using drugs or alcohol and be aware of their surroundings at all times. The third is **Anticipation**. Drivers need to take measures to minimize the risk to all around them and take action to avoid issues. The fourth is **Judgment**. Good drivers should not make risky maneuvers such as trying to beat red lights, or passing when it's not safe. Number five is **Skill**. Good defensive drivers should have the technical skills to operate their motor vehicle in a manner that does not endanger anyone else on the roadway, even in hazardous conditions.

The Smith System also has five keys 1.) **Aim High in Steering**. This means looking 15 seconds into your future not just at the vehicle in front of you. 2.) **Get the Big Picture**. Be on the lookout for hazards, other motorists, debris in the road, and animals. 3.) **Keep Your Eyes Moving**. Don't stare at one object. Keep your eyes moving in all directions and anticipate your next move. 4.) **Leave Yourself an Out**. Constantly monitor the space around you and other vehicles. 5.) **Make Sure They See You**. Use your signals, horn, and make eye contact. (Reference #3) This incident could have been prevented if the victim had used this method of defensive driving.

Recommendation No. 3: Commercial motor vehicle drivers should be trained to know the signs of fatigue and steps to take to eliminate driving while fatigued.

Fleet Safety managers need to continue to educate their drivers on signs of fatigue and recommendations to fight fatigue. One recommendation is to prevent driving from being too routine by stopping en route every 100 miles or 2 hours. Getting a good night's rest prior to departure is also key in preventing fatigue. (Reference #1)

Keywords

Truck driver
Tanker trucks
Distracted driving
Load shifting

References

1. Federal Motor Carrier Safety Administration (FMCSA), US Department of Transportation (US DOT) <http://www.distraction.gov/research/pdf-files/Driver-Distraction-Commercial-Vehicle-Operations.pdf>
2. <http://www.popularmechanics.com/cars/how-to/repair/just-how-dangerous-is-daydreaming-while-driving-15935216>
3. http://www.smith-system.com/training_solutions/on_the_road

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