

Passenger Dies When Semi-Truck Trailer Hits Cow In Roadway

Incident Number: 05KY089



Tractor-trailer cab involved in fatal crash. Cab was cut away with torches so EMS personnel could reach occupants and administer aid.

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Kentucky Fatality Assessment and Control Evaluation (FACE) Program

Incident Number: 05KY089

Incident Date: November 8, 2005

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Subject: Passenger Dies When Semi-Tractor Trailer Hits Cow In Roadway

Summary

On November 8, 2005, a 26-year-old male laborer who was a passenger in a semi-truck died when the driver swerved to avoid hitting a cow that was standing in the parkway lane. The two employees had been traveling westbound for approximately one hour when the driver noticed a cow in his lane. He swerved to avoid hitting the cow but hit it anyway. The tractor and two trailers jack-knifed, traveled through the median with the cab and trailers flipped onto their right sides, slid across the eastbound lanes, then the cab slammed through the guardrail. The cab came to rest on the steep embankment of the shoulder. A passing motorist called emergency services. Emergency personnel arrived, climbed down the steep embankment and found the top of the cab crushed. Both driver and passenger were thought to be alive. However, because of the steep slope and the condition of the cab, rescue personnel could not administer first aid to the two men in the cab. Tow trucks were called to the scene to move the two trailers and pull the cab up the slope and onto the pavement. Using torches, rescuers cut away the metal of the cab to reach the two men. Both men were wearing seatbelts which needed to be cut in order to free them. Emergency personnel assessed both men. The driver was found to be alive and was transported to the nearest hospital. However, the passenger did not have vital signs. The local coroner was contacted; he arrived and declared the passenger dead at the scene.

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

Recommendation No. 1: Livestock owners should ensure boundary fences are appropriate for the animal type and regularly maintained to ensure both animal and public safety.

Recommendation No. 2: Police should warn motorists when errant farm animals are on interstate highways.

Recommendation No. 3: Companies should provide professional training for company truck drivers.

Recommendation No. 4: Parkway medians should be designed and constructed with median barriers to deter crossover median crashes.

Background

On November 9, 2005, the Kentucky Fatality Assessment and Control Evaluation Program was notified by Kentucky Occupational Safety and Health of an occupational fatality involving a

laborer in a semi-truck incident. The company was contacted and two site visits were made. Interviews were conducted with company staff, police, the local coroner, and the owner of a towing company. Photographs of the parkway and semi-tractor trailer were taken.

The company the decedent worked for manufactured wood trim, doors, and windows. It had been in business for 25 years and employed approximately 800 people. The decedent had worked for the company for a year as a laborer. His duties were to load semi-trailers with merchandise for deliveries, travel with drivers, then unload merchandise at delivery locations. He was paid by the hour. The driver had been employed by the company for approximately 5 years and had been driving semis for two years. He received a base pay plus mileage.

Semi-tractor trailers were loaded with merchandise on the evenings before delivery was due. When the semi-truck drivers and assistants arrived in the morning, the semi-tractor trailers were ready to be driven to delivery locations, such as warehouses and residences.

Driver training consisted of new driver trainees riding with an experienced driver for four months. During this time, the trainee observed the driver and was responsible for unloading the trailers at the delivery sites for the driver. After this training period, driver trainees would take the Commercial Drivers License exam. Once the exam was passed, the employee was permitted to drive semi-tractor trailers for the company.

Investigation

According to police reports, beginning at 4:02 AM on November 8, 2005, motorists traveling on a parkway began calling police informing them a cow was loose on the parkway. Four phone calls regarding the loose cow were made between 4:02 AM and 5:15 AM by other motorists. The first motorist, a delivery truck driver, was traveling on the parkway when he saw the cow. He called 911 and while waiting for police to arrive, (the county deputy sheriff was on the opposite side of the county), tried to herd the cow off the parkway. After waiting 15 to 20 minutes, the police had not arrived to the scene and the motorist drove on to work. A second phone call was received at 4:28 AM by another motorist informing police of the cow. At 4:30 AM the county deputy sheriff arrived at the parkway, but did not see the cow. At 4:31 AM, a third call was made and a county deputy sheriff was again dispatched. At 4:32 AM, a city police officer went to the parkway and looked for the cow, but could not locate the cow and after 10 minutes, left the area. The legal speed limit for this section of the parkway was 65 miles per hour.

On that same morning at approximately 4:00 AM, two employees (a semi-truck driver and an assistant) arrived at a warehouse for work. They entered the day cab of a semi-tractor hitched to two trailers. The semi-tractor weighed 9,000 pounds and the front and back trailers weighed between 12,000 – 14,000 pounds and 6,000 – 7,000 pounds, respectively. The total weight of the semi-tractor and two trailers was between 27,000 to 30,000 pounds. Empty, the trailers weighed between 3,000 – 3,500 pounds each. An independent source stated the semi-tractor was geared not to go faster than 83 mph.

At 4:15 AM the two-man team pulled away from the warehouse and began the westbound drive on a parkway to a city 90 miles away. They would be on the same parkway at about the same time as two other company semi-tractor drivers; one semi-truck (also westbound) left 30 minutes before the two man team and was ahead of them on the parkway, while the other semi-truck (eastbound) was returning to the central warehouse from making deliveries in another state. The two-man team was to make deliveries to customers' homes and a warehouse location then return to the central warehouse later that day. At approximately 5:15 AM, the semi-truck was 56 miles from the home warehouse, traveling west on a hilly, four-lane divided parkway. It was still dark. The driver was in the right hand lane on a flat stretch of road when he suddenly noticed a red cow in his lane of the parkway. He tried to avoid hitting the animal by braking and swerving to the left. The front of the semi-tractor hit the cow and the two trailers jackknifed. The semi-tractor and both trailers went across the median, and flipped onto their right sides. They slid across the two eastbound lanes pushing the cab front-end first through the guardrail along the outside lane. The cab came to rest on a steep slope of the embankment and the two trailers laid across the two eastbound lanes. The top of the semi-tractor was crushed down into the cab. At 5:18 AM a passing motorist called emergency services and informed them a semi-tractor trailer had hit a cow and slid across the median. A cargo van traveling east did not see the trailers laid across the eastbound lanes until it was too late. He swerved to avoid hitting the trailers, however, he sideswiped the rear trailer then came to a rest in the median of the parkway. The driver of the cargo truck was not physically injured.

Emergency services arrived at 5:22 AM to find the cab of the semi-tractor trailer had broken through the guardrail and was resting on the steep slope of the parkway shoulder. Emergency personnel observed both occupants wearing their seat belts and both men were thought to be alive. Due to the steepness of the slope and the condition of the cab, emergency personnel were not able to administer first aid to either of the two men. A wrecker was called to the scene to move the trailers and pull the semi-tractor trailer cab up onto the pavement of the parkway. Torches were used to cut away the metal of the cab. Once emergency crew members reached the men, they cut away each man's seatbelt and removed the men from the cab. The driver was alive, but the passenger had died. An ambulance transported the driver to the nearest hospital, arriving at 8:02 AM. The local coroner was summoned to the scene and upon arrival, declared the passenger dead. It took five hours after the incident to clear the eastbound lanes of the parkway and open it for traffic.

During the time this incident was occurring, the other semi-truck traveling west was ahead of the semi-truck that hit the cow and heard on the radio that an accident involving a semi-truck pulling two trailers had occurred behind him. He called company dispatch and informed the supervisor of the collision. The dispatch supervisor then tried to contact the other two drivers. He finally made contact with the east-bound driver who said he was stopped on the parkway because of a wreck about one-half mile in front of him. The supervisor told him to get up to the wreck as soon as possible because he had not been able to reach the two-man team pulling the double trailers. When the driver reached the scene, he recognized the company semi-tractor trailer, contacted dispatch and informed them that the wreck was one of their drivers and the decedent.

Cause of Death

The Certificate of Death states the cause of death was due to multiple blunt trauma as a consequence of a motor vehicle collision.

Recommendations and Discussions

Recommendation No. 1: Livestock owners should ensure boundary fences are appropriate for the animal type and regularly maintained to ensure both animal and public safety.

The cow did not have identifying marks and the police were unable to trace the cow's owner. However, it is believed that the cow escaped through a hole in the fence of a nearby farm and onto the parkway. Adequate fencing such as woven wire, no-climb or electric should be used to contain livestock on farms. Fencing should be routinely checked and maintained to ensure breaks, holes, or gaps are repaired in a timely manner.

Recommendation No. 2: Police should warn motorists when errant farm animals are on interstate highways.

Police departments should use citizen band radios and temporary roadside signs to warn motorists of errant farm animals loose on the highway. Alerts should be implemented immediately upon notification of a potentially dangerous situation in the area. The alerts should be kept in place until the animal(s) have been removed from the roadways and removal has been verified.

Recommendation No. 3: Companies should provide professional training for company truck drivers.

Company truck drivers should receive formal professional driver training. This training should include defensive driving techniques, driving in adverse weather and road conditions, as well as dealing with the general motoring public. According to two truck driver training schools, defensive driving techniques would include looking eight to ten seconds ahead of the truck and how to deal with animals such as cows in the roadway. Companies should also require truck drivers to receive driver training during night time hours.

Recommendation No. 4: Parkway medians should be designed and constructed with median barriers to deter crossover median crashes.

Parkway medians are designed and constructed to drain water away from road surfaces, give errant drivers space to regain control of their vehicles, provide space for emergencies, and help prevent crossover median crashes. Crossover median crashes result in higher fatality rates than non-crossover crashes (Federal Highway Administration). To help prevent crossover median crashes, installation of barriers in medians less than 60 feet wide should be considered. The median in this incident was 30 to 40 feet wide. Use of continuous, cast-in-place concrete median barriers that are at least 42 inches tall should be considered in parkway medians that are less than 60 feet in width. Also, according to the Federal Highway Administration, this type of barrier is able to contain large trucks and help prevent median crossover crashes of large, heavy semi-tractor trailers.

Keywords

Cow
Double trailer
Passenger
Semi-tractor trailer

References

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Tire marks from semi-tractor and two trailers crossing parkway median after collision with a cow.



Cab of semi-tractor at towing company after collision. Top of cab was cut away with torches. Seat belts were cut to free both occupants.