Truck Driver Killed in Vehicle Overturn in Wyoming

SUMMARY

A 51 year old female truck driver died from injuries received when the truck she was driving overturned while negotiating a curve on an Interstate highway near an old Overland Trail crossing. The victim was driving a semi-tractor with a single truck trailer loaded with refrigerated goods, on icy blacktop highway under dark and windy conditions. Her speed was estimated at approximately ten miles per hour over the posted limit, traveling downhill into a right hand turn. The driver lost control of the truck which left the roadway and jackknifed to the right, then tipped onto its left side, lifting the trailer and fifth wheel off the ground. The tractor then rotated clockwise ½ turn, landed on its cab and slid 55', coming to rest on the roof, pinning the victim, who was unbelted, inside near the driving area.

Employers may be able to minimize the potential for occurrence of this type of incident through the following precautions:

- Policy should be developed, posted, utilized, and enforced in regard to compliance with speed limits
- Safety literature regarding weather and other driving hazards should be made available to drivers travelling in unfamiliar geographical areas
- Seat-belt usage should be strictly enforced for all commercial truck drivers

INTRODUCTION

Early on a Thursday morning, February 18, 1993, a semi-tractor with a single trailer containing refrigerated foods was eastbound on an Interstate in a hilly area between two mountain ranges at a point where a crossing had been designated for the Overland Trail.

The night was dark and the asphalt road was icy. The driver was accompanied by her husband, who was asleep in the cab sleeper. The driver was not using the seatbelt that was installed in the cab of the truck, and was driving at speeds ranging from 65 to 75 mph on a road posted at 65 mph. She was on a downgrade, approaching a sharp curve to the right, when she lost control of the vehicle, leaving the roadway and jackknifing to the right. After leaving the roadway, the trailer tipped onto its left side, pulling the tractor up off the ground. While being pulled into the air, the tractor's fifth wheel plate came off, remaining with the trailer. As the tractor was separating from the trailer, the left rear drive axle struck the trailer, causing the tractor to rotate clockwise one-half turn and land on the cab roof. After landing, the cab slid approximately 55 feet, and the trailer continued to slide on past the tractor.

As the cab rolled onto it's top, crushing the roof on the driver's side, the passenger was thrown from the sleeper into the passenger compartment, and partially ejected through the passenger window.

INVESTIGATION

Through a reciprocal notification agreement with the Wyoming Department of Transportation, the WY-FACE Program wa notified of the incident by written report on February 22. On receipt of such notification WY-FACE investigators requested and received reports relating to the incident.

The victim and her husband were the owners of the truck which was hauling refrigerated goods across the state. The cab was 20 years old with an odometer reading of almost 220,000 miles, but was apparently in good operating condition with no defects noted.

There were no unusual road conditions and, outside of darkness on an unlighted portion of the Interstate, nothing to obstruct the driver's vision. The highway had wide shoulders and a gentle slope of the roadside suitable for off-road recovery. There was packed snow on the roadside and the roadway was icy. A strong wind was blowing which, along with the icy roadway and snowpacked roadside, could have hampered recovery. Speeds in excess of the posted limit were also contributors to the occurrence.

The incident was reported to EMS responders approximately 30 minutes after the occurrence and arrived at the scene 40 minutes after notification. Law enforcement officers were the first to arrive at the scene, having been notified some five minutes after EMS notification and arriving 9 minutes ahead of them.

CAUSE OF DEATH

The Medical Examiner listed the cause of death as cerebral hemorrhage due to skull fracture.

RECOMMENDATIONS/DISCUSSION

This incident was preventable in that the driver was exceeding the speed limit that had been posted for travel under good driving conditions. Adverse driving conditions, including darkness and icy roads, should have alerted the driver to additional hazards, and she should have responded by driving slower and more cautiously. The additional hazards of entering a downgrade curve with strong winds blowing should further have caused her to reduce her speed and proceed with extreme caution. Apparently, none of those things happened, and the victim entered the curve at too high a rate of speed, and lost control of her vehicle, resulting in an overturn and her death.

Whether or not seat belts would have reduced the severity of injury in this incident is questionable, since the greatest damage was to the driver's compartment as the rollover caused the roof to cave in around the driver, pinning her inside the car and crushing her skull. Had she been properly belted she may have maintained better control of the vehicle than she could with the force of the movement shifted her body inside the cab. There is some proof that belted drivers have better opportunity to maintain control than do unbelted drivers. At any rate, she would certainly not have been less apt to have died from the

incident if her belt had been worn. For the sake of safety, seat belt use is probably more important than any other factor in reducing deaths in vehicle crashes.

The fact that the drivers lived in an area where strong winds and mountain roads are less evident may also be a factor added to those listed above that caused the driver to be less cautious than is safe under such hazardous conditions. Anyone driving from one geographical area to another, particularly where winter weather conditions might be hazardous, should be made aware of conditions that exist in that area. Many such items are available, ranging from brochures and pamphlets prepared by automobile clubs and the National Safety Council to locally produced booklets like the Wyoming Winter Driving booklet provided through the Department of Transportation. Commercial drivers should avail themselves of the materials that are available to maintain maximum safety in other states.

FATAL ACCIDENT CIRCUMSTANCES AND EPIDEMIOLOGY (FACE) PROJECT

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), performs Fatal Accident Circumstances and Epidemiology (FACE) investigations when a participating state reports an occupational fatality and requests technical assistance. The goal of these evaluations is to prevent fatal work injuries in the future by studying the working environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact.

States participating in this study include: Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

NIOSH Funded/State-based FACE Projects providing surveillance and intervention capabilities to show a measurable reduction in workplace fatalities include: Alaska, California, Colorado, Georgia, Indiana, Iowa, Massachusetts, New Jersey, Minnesota, Missouri, Wisconsin and Wyoming.

Additional information regarding this report is available from:

Wyoming Occupational Fatality Analysis Program 522 Hathaway Building - 2300 Capitol Avenue Cheyenne, WY 82002 (307) 777-5439

Please use information listed on the Contact Sheet on the NIOSH FACE web site to contact Inhouse FACE program personnel regarding Inhouse FACE reports and to gain assistance when State-FACE program personnel cannot be reached.