



INCIDENT HIGHLIGHTS

DATE: January 21, 2025

TIME: 08:52 a.m.



VICTIM: 62-year-old white, non-Hispanic male



INDUSTRY/NAICS CODE: 484110

EMPLOYER: Trucking company



SAFETY & TRAINING: No written safety program



SCENE: State highway

LOCATION: Kentucky

EVENT TYPE: Motor vehicle crash



REPORT#: 25KY001

REPORT DATE: July 22, 2025

Truck Driver Dies after Truck Overturns

On January 21, 2025, a 62-year-old white, non-Hispanic truck driver (victim) was traveling on a two-lane state highway when the truck he was operating left the highway and overturned. The driver succumbed to the injuries he sustained at the scene of the crash.

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CONTRIBUTING FACTORS

Key contributing factors identified in this investigation include:

- Driving while under the influence of intoxicating substances
- Vehicle not under proper control
- Lack of written safety program
- Highway warning signs missing/damaged

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RECOMMENDATIONS

Kentucky investigators concluded that, to help prevent similar occurrences, employers should:

- Consider utilizing artificial intelligence (AI) dash cameras to proactively address and coach drivers who are exhibiting risky behaviors;
- Implement a Workplace Supported Recovery Program (WSRP);
- Implement a formal health & safety program, which requires employees who operate commercial motor vehicles to complete initial and recurring annual defensive driver training.

Kentucky Investigators concluded that, to help prevent similar occurrences, the Kentucky Department of Highways should:

• Ensure that highway warning signs are free of damage, legible, and properly placed to adequately warn drivers of hazards.



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Fatality Assessment and Control Evaluation Program

This case report was developed to draw the attention of employers and employees to a serious safety hazard and is based on preliminary data only. This publication does not represent final determinations regarding the nature of the incident, cause of the injury, or fault of employer, employee, or any party involved.

This case report was developed by the Kentucky Fatality Assessment and Control Evaluation (FACE) Program. Kentucky FACE is a National Institute for Occupational Safety and Health-funded occupational fatality surveillance program with the goal of preventing fatal work injuries by studying the worker, the work environment, and the role of management, engineering, and behavioral changes in preventing future injuries. The FACE program is located at the Kentucky Injury Prevention and Research Center (KIPRC). KIPRC is a bona fide agent for the Kentucky Department for Public Health.

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INTRODUCTION

On January 21, 2025, a 62-year-old white, non-Hispanic male truck driver (victim) was en route to deliver a load of wooden mats to a job site. While doing so, the 1986 Mack semi-truck and trailer he was operating left the travel portion of the roadway, overturned, and came to a final rest on its top. The victim succumbed to the injuries sustained in the incident at the scene.

EMPLOYER

The employer is a commercial trucking company that transports freight across Kentucky. Established in the early 1970s, the company primarily focuses on contractual freight work for oil field and electric companies. According to the Federal Motor Carrier Safety Administration, the company travels nearly 50,000 miles annually and is registered as an active intrastate carrier, meaning they do not leave the state of Kentucky. The trucking company is registered to transport oil field equipment, metal, machinery, and construction equipment.¹ According to a company representative, they employ six workers, including drivers and support staff.

WRITTEN SAFETY PROGRAMS and TRAINING

The employer does not have a written safety program. A company representative informed the investigator that the owner of the company must ride with and approve each new driver before they can work alone. Additionally, the company stated that they conduct pre-employment criminal background checks and host daily safety toolbox meetings with drivers. Topics for the meetings include speed awareness, seat belts, proper tiedown procedures, and pre-trip inspections. The employer stated that a federally compliant pre-employment and random drug and alcohol testing program is in place.

WORKER INFORMATION

The victim was a 62-year-old white, non-Hispanic male. He was a high school graduate and a United States military veteran who had worked for the employer since 2019. The victim was described as a life-long driver, having more than 30 years of experience.

INCIDENT SCENE

The incident occurred on a rural two-lane Kentucky highway. Travel lanes are separated by a double yellow line, which indicates that passing is not authorized. The speed limit is 55 mph, and no guardrails are present at the scene. The road, which runs from east to west, has several prominent curves and grade changes (photo 1). The road was dry at the time the incident occurred.







Photo 1. Overhead view of the location where the incident occurred. The yellow location marker represents the approximate location where the truck came to a stop. (Google Earth)

WEATHER

The weather on the day of the incident was approximately 12 degrees Fahrenheit, with 73% humidity and a 9-mph wind out of the northwest.² The weather is not believed to have been a factor in this incident.





INVESTIGATION

At approximately 7:00 a.m. on January 21, 2025, a 62-year-old white, non-Hispanic male commercial truck driver (victim) arrived for his shift. The victim typically worked four 10-hour shifts Monday through Thursday of each week. Having worked for the employer for more than five years, the scope of the victim's job was to operate a commercial semi-truck and flatbed trailer to deliver freight across Kentucky.

On the day the incident occurred, the victim was operating a 1986 Mack RD semi-truck (photo 2) with a 32-foot Dickerson flatbed trailer in tow (photo 3). The task of the day was to deliver 22 wooden mats to a Kentucky-based job site; the weight of the truck, trailer, and wooden mats was approximately 75,000 lbs. This trip was not the first time the victim had delivered to this job site; he had successfully completed two deliveries to the same location the day prior.

Approximately two hours into the victim's workday, at 8:52 a.m., the victim was involved in a single vehicle fatal collision. According to the crash report, the victim was traveling westbound on a rural two-lane Kentucky highway when he attempted to navigate a 90-degree turn. Although the speed of travel was not listed on the crash report, crash investigators determined that the speed at which the truck entered the curve was too fast for the victim to maintain proper control of the vehicle. Braking marks present on the roadway suggest that the victim attempted to brake upon realizing the vehicle was traveling too quickly to navigate the turn. The braking attempt was unsuccessful, which led to the semi-truck and trailer exiting the travel portion of the cargo to shift, which resulted in the trailer overturning. As the trailer overturned, the semi-truck followed, overturning and coming to a final rest on its top (diagram 1, photo 4).

A witness contacted 911 two minutes after the collision occurred, at 08:54 a.m. Police arrived 16 minutes later, at 9:08 a.m. EMS arrived shortly after at 9:17 a.m. Upon emergency services' arrival, the victim was unresponsive, and it was apparent to investigators that the victim was deceased. The victim, who was trapped in the cab of the truck, was extracted after the semi-truck and trailer were recovered by a local tow company and placed back on its wheels. According to the police report, the victim had not utilized a seat belt.

Forensic toxicology reports indicated the presence of amphetamines and methamphetamine in the victim's system. However, "vehicle not under proper control" was the only listed human contributing factor documented by investigators on the official crash report.







Photo 2. Photo of a 1986 Mack RD semi-truck, similar to the type of truck involved in the incident. Image found via Google search.



Photo 3. Photo showing type of trailer similar to that involved in the incident. Image obtained via Google search.







Diagram 1. Diagram depicting the approximate path traveled by the involved semi-truck and trailer. The red location marker indicates the approximate location where the vehicle came to a final rest on its top. Diagram property of Kentucky FACE.



Photo 4. Scene of incident captured by responding officer's body camera. Photo obtained via Kentucky open records request.





CAUSE OF DEATH

According to the death certificate, the cause of death was multiple blunt force trauma.

CONTRIBUTING FACTORS

Workplace injuries and fatalities are often the result of one or more contributing factors or key events in a larger sequence of events that ultimately result in injury or fatality. Kentucky investigators identified the following unrecognized hazards as key contributing factors in this incident:

- Driving while under the influence of intoxicating substances,
- Vehicle not under proper control,
- Seat belt not worn,
- Lack of written safety program, and
- Highway warning signs missing/damaged.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Consider utilizing artificial intelligence (AI) dashboard cameras to proactively address and coach drivers who are exhibiting risky behaviors.

Discussion: AI dashboard cameras use artificial intelligence to detect risky driving behaviors, such as lane departure, distracted driving, tailgating, and speeding. The cameras alert drivers through visual or audio warnings, encouraging corrective action to prevent accidents. AI cameras are an affordable and widely utilized safety system that monitor driving patterns and intervene when needed.

Key benefits of AI dash cameras include:

- Real-time analysis: AI evaluates live video footage to identify risky behaviors and offers real-time feedback.
- Driver behavior monitoring: AI cameras detect distractions like phone use, drowsiness, speed, following distance, and sudden movements, prompting drivers to pay attention.
- Hazard identification: AI can spot potential hazards, such as pedestrians, cyclists, and road obstacles, and issue early warnings.
- Customizable settings: Some dash cams allow adjustments to fit specific driving environments and company policies.
- Feedback and coaching: In addition to alerts, some systems offer post-drive analysis to highlight recurring risky behaviors and provide driver training opportunities.

To help reduce the likelihood of similar incidents in the future, Kentucky FACE investigators suggest that companies consider utilizing AI dash cameras to proactively address and coach drivers who are exhibiting risky behaviors.





Recommendation #2: Implement a Workplace-Supported Recovery Program.

Discussion: A standard post-crash toxicology report indicated the presence of both amphetamine (82.5 ng/mL) and methamphetamine (231 ng/mL) in the victim's blood.

Methamphetamine (meth) is a synthetic stimulant that is highly addictive and can cause considerable health adversities including death. Meth not only changes how the brain works but also speeds up the body's systems to dangerous, sometimes lethal, levels—increasing blood pressure and heart and respiratory rates. People who repeatedly use meth may also experience anxiety, paranoia, aggression, hallucinations, and mood disturbances.³

A recent narrative review focusing on the effect of psychoactive drug concentrations and cognitive impairment shows evidence of dangerous driving after both acute and chronic use of amphetamines.⁴

The Federal Motor Carrier Safety Administration (FMCSA) has prohibited the use of amphetamine drugs, including methamphetamine. A driver under the influence of such drugs is considered disqualified from operating a commercial motor vehicle on public highways. FMCSA requires trucking companies to conduct pre-employment drug and alcohol testing and enroll drivers in an on-going random drug and alcohol testing program.

While both pre-employment testing and random testing programs are required, effective, and in place at the involved company, a workplace-supported recovery (WSR) program may add additional value to an organization seeking to curb substance abuse in the workplace. According to the National Institute for Occupational Safety and Health, a WSR program may help to prevent substance use, reduce stigma, and encourage recovery.⁵

A WSR program can help aid an organization by:

- Promoting voluntary disclosure of drug use,
- Creating a supportive work culture and climate,
- Lowering barriers to seeking and receiving care and maintaining recovery,
- Reducing the stigma associated with substance abuse,
- Facilitating access to counseling and medical interventions,
- Offering resources for peer support groups,
- Establishing alternate job responsibilities during recovery, and
- Establishing a return-to-work program for those recovering from substance abuse.





Each person's path to recovery is unique. It is affected by the severity of the substance use disorder and the resources available to the individual.⁵

It's important to note, particularly in companies subject to FMCSA regulations, a WSR must adhere to regulatory requirements as they relate to positive drug and/or alcohol tests and returning to safety-sensitive driving positions.

To aid in reducing substance abuse in the workplace, Kentucky FACE investigators suggest that employers include a WSR program in their health and safety program. For additional resources, employers can view the Kentucky Injury Prevention and Research Center's toolkit for hiring employees in recovery by clicking <u>here</u>.⁶





Recommendation #3: Implement a formal health and safety program, which requires employees who operate commercial motor vehicles to complete initial and recurring annual defensive driver training.

Discussion: According to the employer, the company had no formal training program in place when the incident occurred. The Occupational Safety and Health Administration (OSHA) requires employers to provide training to employees who face hazards in the workplace. A formal health and safety program may be an effective way to help employers keep employees safe, mitigate risk, and meet regulatory requirements.

According to OSHA, the main goal of safety and health programs is to prevent workplace injuries, illnesses, and deaths, as well as the suffering and financial hardship these events can cause for workers, their families, and employers. OSHA offers a recommended practices guide for employers to proactively manage workplace safety and health. Traditional approaches are often reactive, meaning problems are addressed only after a worker is injured or becomes sick, a new standard or regulation is published, or an outside inspection finds a problem that must be fixed. These recommended practices recognize that finding and fixing hazards before they cause injury or illness is a far more effective approach.

The idea is to begin with a basic program and simple goals and grow from there. If you focus on achieving goals, monitoring performance, and evaluating outcomes, your workplace can progress along the path to higher levels of safety and health.

Employers will find that implementing these recommended practices also brings other benefits. Safety and health programs help businesses:

- Prevent workplace injuries and illnesses,
- Improve compliance with laws and regulations,
- Reduce costs, including significant reductions in workers' compensation premiums,
- Engage workers,
- Enhance the company's social responsibility goals, and
- Increase productivity and enhance overall business operations.⁷

The program should continue to develop with the addition of job-specific safety procedures and policies, specifically annual defensive driver training for employees who operate commercial vehicles, once the basic program is implemented. Defensive driver training addresses multiple vital elements of safe driving, including defensive driving basics, speeding and distractions, impaired driving, managing risk, safely sharing the road, the three stages of collisions, and 10 habits of defensive driving.⁸ The Kentucky Transportation Cabinet has partnered with the National Safety Council to make defensive driver training affordable and available online; it can be accessed by clicking <u>here</u>.

An important element of a health and safety program is the company's stances on seat belt utilization, speeding, and a drug and alcohol program. Although these topics are addressed by both federal and state law, a company policy relating to their use would define the expectations and the repercussions for failing to meet those expectations. The victim in this case was not wearing a seat belt, according to the crash report. While a seat belt may not have prevented the fatality in this instance, a policy may increase compliance and prevent future injuries and fatalities.





To prevent similar incidents from occurring, Kentucky FACE investigators recommend that employers implement a formal health and safety program, which requires employees who operate commercial motor vehicles to complete initial and recurring annual defensive driver training.

Recommendation #4: Ensure that highway warning signs are free of damage, legible, and properly placed to adequately warn drivers of hazards.

Discussion: According to the company involved, a static W1-3 reverse turn sign (photos 4 & 5) was damaged and down prior to the collision. Although the police report does not mention the missing sign, and FACE investigators cannot be certain, the absence of tire tracks on the shoulder of the road does suggest that the vehicle involved did not strike the sign.

Studies conducted by the U.S. Department of Transportation Federal Highway Administration suggest that advance static curve warning devices, like the W1-3 reverse turn sign that was down/missing, may help reduce minor and serious injury collisions by as much as 30%.⁹

Although the impact of the missing sign cannot be accurately assessed, the presence of the sign may have helped provide advance warning of the sharp curve ahead.

To aid in the prevention of similar incidents, the Kentucky Transportation Cabinet Department of Highways should ensure that highway warning signs are free of damage, legible, and properly placed to adequately warn drivers of hazards.



Photo 4. Photo of W1-3 reverse turn sign located at the scene of the crash. Photo provided by the involved company.



Photo 5. Photo of W1-3 reverse turn sign located at the scene of the crash. Photo provided by the involved company.

DISCLAIMER





Mention of any company or product does not constitute endorsement by Kentucky FACE and the National Institute for Occupational Safety and Health (NIOSH). In addition, citations to websites external to Kentucky FACE and NIOSH do not constitute NIOSH endorsement of the sponsoring organizations or their programs or products. Furthermore, Kentucky FACE and NIOSH are not responsible for the content of these websites. All web addresses referenced in this document were accessible as of the publication date.

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INVESTIGATOR INFORMATION

This investigation was conducted by Beau Mosley, Fatality Investigator, Fatality Assessment and Control Evaluation, Kentucky Injury Prevention and Research Center, University of Kentucky, College of Public Health.

ACKNOWLEDGMENT

The Kentucky FACE Program would like to thank the involved company for their assistance with the completion of this report.

PROGRAM FUNDING

The Kentucky Fatality Assessment and Control Evaluation Program (FACE) is funded by the National Institute of Occupational Safety and Health (NIOSH), the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS), as part of cooperative agreement 5 U60OH008483 totaling \$1,601,266 with 0% financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, NIOSH, CDC, HHS, or the U.S. government.