

Occupational Fatality Report

Kentucky FACE Program

Report No. 16KY055

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Tow Truck Driver Struck and Killed by Van While Entering His Tow Truck

CASE SUMMARY

On Monday, October 3, 2016, a 42-yearold male tow truck driver (the victim) had successfully loaded a disabled pickup truck onto his rollback tow truck on the southbound shoulder of a four lane, undivided highway. As the victim was entering the tow truck cab on the traffic-facing side of the truck, an oncoming van swerved into the emergency lane and struck him, causing fatal injuries. The tow truck driver was pronounced dead at the scene.



Figure 1. Point of impact, driver's side door of tow truck.

Recommendations for prevention:

- Tow truck drivers should limit the amount of time spent on the traffic-facing side of the truck.
- Law enforcement should be present to aid in traffic control when vehicles are to be towed at roadside.
- There should be increased public awareness of the "Move Over Law" in Kentucky.³
- Tow truck operators should utilize portable emergency warning devices such as bidirectional reflective triangles.
- Tow truck operators and owners should consider National Traffic Incident Management Responder Training, regardless of company size.⁴



Kentucky Fatality Assessment and Control Evaluation (FACE) Program

EMPLOYER

The employer was a towing and auto repair center with 8 employees. At the time of the investigation, the company had been in business since 2010.

EQUIPMENT



Figure 2. Stock image of a Ford F-650 Super Duty Pro Loader tow truck, similar to the one operated by the victim.

The tow truck operated by the victim was a Ford F-650 Super Duty Pro Loader with a rollback design for loading. The light bar was positioned on top of the truck bed, on the side nearest the cab. According to manufacturer's specifications, the rollback wrecker's front-wheel fender-to-fender width measured approximately 8 feet.¹

SAFETY AND TRAINING PROGRAMS

The owner reported that tool box talks were given at the beginning of each work shift. No other formal training was provided. Training for the victim was not considered by the employer due to his level of prior experience.

VICTIM

The victim was a 42-year-old male with some high school education. He was a married father of three and a volunteer coach for the Special Olympics. While he had worked for his current employer for 2 years and 2 months, his family stated that he had been a tow truck driver for several years and had a genuine love for his profession. His employer stated he was a dependable employee who was known to perform his job duties in a safety-conscious manner, kept his truck clean and professional, and generally possessed excellent work habits.

INCIDENT SCENE

The incident took place on the southbound lane shoulder of an undivided highway (no median). The highway had two lanes in each direction, with a double yellow line separating the two directional sides of traffic. On the outside perimeter of each side of the highway was a shoulder measuring approximately 8.5 feet wide. Running parallel to the southbound lane was a railroad track, which measured approximately 21 feet from the outside edge of the shoulder. Approximately 15-20 feet



Figure 3. Shoulder where the incident occurred.

ahead of the parked tow truck was the entry to a single-lane side-road. The highway was flat and straight for approximately two-thirds of a mile leading up to the incident location. There were no forms of artificial lighting provided in proximity to the incident scene and it was dark at 10:00 pm. The posted speed limit was 55 mph, but witnesses stated they observed vehicles driving approximately 70 mph prior to the incident.



Figure 4. A) View of the incident scene from the single-lane side-road entry. B) Aerial view of the incident scene. The red star denotes approximately where the victim was positioned when struck.

WEATHER

October 3, 2016, had temperatures ranging from 58 to 79 degrees Fahrenheit. The temperature was approximately 66° F at the time of the incident. The humidity was 61%, and the wind was blowing from the northeast direction at 5.8 mph with partly cloudy conditions. Weather was not considered to be a factor in this incident.²

16KY055 Page 4

INVESTIGATION

On Monday, October 3, 2016, the Kentucky Fatality Assessment and Control Evaluation (FACE) Program was made aware, through local media coverage, of a fatality involving a tow truck. An immediate site visit and investigation was subsequently conducted.

On a late fall evening, a tow truck driver (the victim) received a phone call from a stranded driver requesting vehicle towing assistance on the shoulder of a four-lane undivided highway (Figure 4B). Arriving at approximately 10:05 pm, the tow truck driver parked his rollback wrecker on the shoulder directly in front of the disabled vehicle, exited his cab, spoke with the customer, and began loading the vehicle onto the tow truck. It was dark outside, and there were no light poles in the incident area to illuminate the work area. Although it is not required, it is notable that no law enforcement officer was present upon arrival of the tow truck driver, and none was contacted to assist with traffic control. While the light bars on top of the rollback wrecker were engaged, no emergency cones, triangles, or other warning



Figure 5. Diagram of scene following the incident. A) location victim was standing when struck, B) final resting place of victim, C) final resting place of approaching vehicle.

devices were set up to alert approaching motorists of the roadside work being performed. The tow truck driver was wearing an ANSI class 2 reflective shirt and class 3 orange reflective vest— a combination that was compliant at the time with the Manual on Uniform Traffic Control Devices (MUTCD) nighttime visibility standards.

After securing the disabled vehicle to the bed of the tow truck, the victim, walking on the trafficfacing side of the tow truck, approached the driver-side door and began to enter the cab. Meanwhile, a van, which had been observed weaving back and forth across lanes, approached the victim's location. As the driver was climbing into the cab, the van drifted across the shoulder edge line, and struck both the tow truck driver and the tow truck (Figure 5, point A). The victim came to rest in front of the tow truck on the edge of the shoulder's pavement (Figure 5B), and the van came to rest on in the ditch next to the shoulder (Figure 5C).

The driver of the van stated that he was confused as to where he was and what had occurred. He was cited with not being under proper control of the vehicle. The driver was given a portable breath alcohol test (PBT) and submitted to a blood test for drugs. His PBT result was .000. Upon the completion of this report, toxicology results were not consented to obtain.

Emergency Medical Services were called and the tow truck driver was pronounced dead at the scene.

CAUSE OF DEATH

The cause of death was multiple blunt force injuries.

CONTRIBUTING FACTORS

This investigation identified the following factors that may have contributed to the fatality:

- Entering the tow truck cab on the traffic-facing side.
- Possible driver distraction.
- Possible speeding.
- The oncoming passenger vehicle was not under proper control.
- Portable warning devices were not used.
- The road was not well lit.

RECOMMENDATIONS AND DISCUSSIONS

Recommendation No. 1: Tow truck drivers should limit the amount of time spent on the traffic-facing side of the truck.

The victim in this case was fatally struck by an approaching vehicle while entering the cab of his tow truck on the traffic-facing side; his back was turned to the road during impact. Highway shoulders are intended to provide space for emergency response and highway incident management activities, including disabled vehicle response. However, shoulder widths are often narrow, with limited room for a pedestrian to be safely positioned next to the vehicle on the traffic facing side. The highway shoulder measured approximately 8.5 feet in width, while the rollback wrecker had a front-wheel fender-to-fender width of approximately 8 feet. When a tow truck driver is entering the cab of his tow truck on the traffic-facing side, he typically must do so with his back turned, and with the opened door crossing into the adjacent lane of traffic.

To reduce the risk of being directly struck by passing vehicles, tow truck drivers should limit their time spent on the traffic-facing side of the truck. There was sufficient room to <u>enter the cab</u> on the non-traffic-facing side of the truck. To further prevent injury, tow truck operators should use the winch controls on the non-traffic-facing side when the tow truck is equipped with dual winch controls. When tow truck drivers must be on the traffic facing side, they should keep an eye on the adjacent lane and any approaching traffic as often as possible.

Recommendation No. 2: Law enforcement should be present to aid in traffic control when vehicles are to be towed at roadside.

If a vehicle is to be towed at roadside and the tow truck operator is likely to be exposed to approaching traffic, a law enforcement officer should be present to help secure the traffic incident zone. At a minimum, police officers should leave their cruiser's light bar engaged for the duration of the time that it takes the tow truck driver to load the vehicle, enter the cab, and

drive away. In instances where the tow truck driver is lacking sufficient shoulder space to safely work on the traffic-facing side of the tow truck, police officers should use their cruisers to help temporarily shut down the most directly-adjacent travel lane. If a police officer is not present upon arrival of the tow truck operator, law enforcement should be contacted and the presence of an officer should be requested.

Recommendation No. 3: There should be increased public awareness of the "Move Over Law" in Kentucky.³

Kentucky's Move Over Law was enacted in July 2000 and revised in June 2003. It is a law designed to protect law enforcement, emergency services, and public safety workers working alongside roadways. The law requires motorists to approach an emergency vehicle with caution when it is stopped with lights flashing. Motorists must change lanes away from the emergency vehicles if they are traveling on a four-lane roadway and can do so safely. If drivers cannot change lanes safely or are traveling on a two-lane road, they must slow down while maintaining a safe speed so as not to impede other traffic.

To enhance awareness of the law to both Kentuckians and travelers from other states, officials should consider increasing the number of signs along Kentucky roadways and public service announcements which promote the law.

Recommendation No 4: Tow truck operators should utilize portable emergency warning devices such as bidirectional reflective triangles.

While the tow truck driver engaged the truck's light bar, no emergency warning cones, triangles, or other warning devices were placed on the road to provide advanced warning to motorists of the work zone. Despite taking more time, tow truck drivers should employ the use of such warning devices so that motorists may take more prompt actions to slow down or move over to the adjacent lane. When setting the warning devices, tow truck operators should carry the devices in front of them to increase visibility to passing drivers. The tow truck operator should never turn his/her back to approaching traffic during the warning device placement process. Warning devices should be placed in accordance with § 392.22(b), as follows:

- On a **Two-lane road with traffic in both directions,** place the first device on the traffic side of the tow truck 10 feet (4 paces) from the front or rear, whichever end is facing the oncoming traffic. Place another device 100 feet (40 paces) behind and ahead of the tow truck.
- On a **one-way road or divided highway**, place one device 10 feet, 100 feet, and 200 feet (80 paces) toward the approaching traffic.
- Within 500 feet of a hill, curve, or obstruction, place a device 100 to 500 feet from the tow truck in the direction of the hill, curve, or obstruction.

Recommendation No. 5: Tow truck operators and owners should consider National Traffic Incident Management Responder Training, regardless of company size.⁴

The driver had not received formal training on expected work practices from the employer. Tow truck drivers should be knowledgeable of roadside assistance best practices and aware of potential hazards that are inherent to the job. Kentucky FACE recommends that tow truck drivers take National Traffic Incident Management (TIM) Responder Training as a part of routine worker safety training practices. TIM Training offers both hands-on and web-based training on how to safely and properly execute a roadside response. Training topics include:

- TIM fundamentals and Terminology
- Notification and Scene Size-up
- Safe Vehicle Positioning
- Scene Safety
- Command Responsibilities
- Traffic Management
- Special Circumstances
- Clearance and Termination

More information regarding TIM Training can be found by visiting the <u>SHRP2 page</u> on the FHWA website at:

https://www.fhwa.dot.gov/goshrp2/Solutions/Reliability/L12_L32A_L32B/National_Traffic_Inc_ident_Management_Responder_Training_Program

Please take the time to <u>complete our brief survey</u> regarding this report:

(https://uky.az1.qualtrics.com/jfe/form/SV_d5V9vUCYVMn3Ju5)

Electronic access to this full report can be found <u>here</u>:

(http://www.mc.uky.edu/kiprc/face/reports/pdf/16KY055.pdf)

KEYWORDS

Tow truck driver Roadside assistance Struck by Night time towing Traffic incident management Highway incident management

REFERENCES

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² "Historical Weather". *Archive*. Weather Underground. [<u>https://www.wunderground.com/history</u>]

³ "Kentucky Revised Statute 189.930(5)" *Right of way to emergency vehicles – Blocking or following emergency vehicles – Driving over unprotected hoses of fire department*. Kentucky Legislature. [http://www.lrc.ky.gov/statutes/statute.aspx?id=6470]

⁴ "National Traffic Incident Management Responder Training Program". US Department of Transportation Federal Highway Administration. [https://www.fhwa.dot.gov/goshrp2/Solutions/Reliability/L12_L32A_L32B/National_Traffic_In cident_Management_Responder_Training_Program]

PHOTO CREDIT

Figure 1: local police Figure 2: autotrader.com Figure 3: KY FACE Program Figures 4-5: Google Maps

ACKNOWLEDGEMENTS

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DISCLAIMER

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 NIOSH-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 in the <u>Kentucky Injury Prevention and Research</u> <u>Center (KIPRC)</u>. KIPRC is a bona fide agent for the Kentucky Department for Public Health.

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