Occupational Fatality Report

Kentucky FACE Program

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Tow Truck Driver Struck and Killed by Passenger Vehicle While Securing Disabled Vehicle onto Flatbed Tow Truck

CASE SUMMARY

On Monday, September 19, 2016 a 48-year-old male tow truck owner-operator (the victim) was loading a disabled vehicle onto his flatbed tow truck on the west bound shoulder of a four lane controlled access highway. At approximately 10:15 pm, the victim was on the traffic-facing lane side securing the vehicle to his tow truck when the operator of an oncoming Dodge Durango traveling in the same direction failed to move over, veered over the edge line, and struck the tow truck owner and the side of the tow truck. The victim later died at the hospital.

Figure 1. Highway shoulder; approximate location of the collision.

Recommendations for prevention:

- Tow truck operators should limit the amount of time spent on the traffic lane facing side of the tow truck.
- High-visibility safety apparel, such as safety vests, should be worn at all times while working at roadside.
- Tow truck operators should work in conjunction with law enforcement to secure the work area prior to loading and securing a vehicle.
- Tow truck operators should utilize portable emergency warning devices such as bidirectional reflective triangles.
- There should be increased public awareness of the "Move Over Law" in Kentucky.
- Tow truck operators should consider National Traffic Incident Management Responder Training, regardless of company size.

EMPLOYER

The tow truck driver was an owner-operator of a towing business that had been in business for 7 years. The employer operated a single flatbed tow truck and performed routine roadside assistance and vehicle towing services.

EQUIPMENT

Figure 2. Stock image of flatbed tow truck, a similar model to that which was involved in this case.

The tow truck involved was a 2000 Chevrolet C6500 C Series model flatbed tow truck, commonly known as a “rollback wrecker”.

SAFETY AND TRAINING PROGRAMS

Although the driver had several years of experience working in the towing industry, it is unknown if he had any formal operational or safety training.

VICTIM

The victim was 48 years old and was a married father of four. The decedent had received some high school education but did not obtain a diploma. Outside his regular towing job, the victim was also a volunteer firefighter in the local area. A local acquaintance was quoted as saying that the victim often donated his services to people in need without charging.

INCIDENT SCENE

Figure 3: Aerial view of incident scene with a star indicating the approximate location of the incident (A); view of shoulder where the tow truck was parked (B).

The incident took place on the westbound shoulder of a 4-lane controlled access highway. The highway was divided by a grassy median. The incident occurred on a slight incline. A straight, curve-free stretch of road approximately 1,800 feet in the westbound lane led up to the point of impact. The posted speed limit was 70 mph. It was 10:15 pm and dark outside, and there were no light poles located in the incident area.

WEATHER

The temperature was approximately 64°F at the time of the incident. The humidity was 100%, and the wind was calm.[1] It had previously rained and the roads were wet. Weather was not considered a factor.

INVESTIGATION

On Monday, September 20, 2016, the Kentucky Fatality Assessment and Control Evaluation Program was made aware of a fatality involving a tow truck through local media coverage. An immediate site visit and investigation were subsequently conducted.

On Monday evening, September 19, 2016, a tow truck driver (the victim) received a service request call from a passenger car driver who needed his vehicle towed from the westbound shoulder of a nearby controlled-access highway. When the tow truck driver arrived at the scene, it was dark outside, and there were no light poles to provide lighting in the area where the job was to be performed. With the tow truck's light bar engaged, the victim exited the cab and discussed the job to be performed with the customer. He was not wearing a reflective safety vest. He then loaded the disabled vehicle onto the back of his tow truck.

The tow truck driver successfully loaded the stalled car onto the flatbed and began to secure the driver side front and rear of the vehicle on the traffic-facing side of the roll back wrecker. A

Dodge Durango approached in the adjacent westbound lane. Making no attempt to move to the furthest lane, it veered over the edge line into the shoulder lane, striking the tow truck driver and sideswiping the tow truck before coming to rest several feet in front of the tow truck. Witness statements at the scene indicated there were no other vehicles on the road near the Durango to prevent the driver from moving over as state law requires. There were no tire marks to suggest that the driver attempted to brake before striking the tow truck driver and the tow truck. Emergency medical services were immediately called for assistance.

When initially interviewed by responders, the driver of the Dodge Durango claimed to have had no memory of what caused the collision when it first occurred. Cell phone records indicated that her last message was sent 9 minutes prior to the collision. Emergency Medical Services arrived shortly after being called and took both the tow truck driver and the driver of the Dodge Durango to a nearby hospital. The driver of the Dodge Durango was treated and released after submitting to a blood alcohol and drug test. Toxicology results concluded that the driver had no drugs or alcohol in her system at the time of the fatal crash. The tow truck driver was pronounced dead in the hospital.

CAUSE OF DEATH

The cause of death was multiple blunt force trauma.

CONTRIBUTING FACTORS

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

- The Dodge Durango driver did not move over as state law requires.
- The highway shoulder was too narrow for tow work to be completed.

The following are possible contributing factors to the incident:

- Dark conditions
- Possible distracted driving

RECOMMENDATIONS AND DISCUSSIONS

Recommendation No. 1: **Tow truck operators should limit the amount of time spent on the traffic lane facing side of the tow truck.**

Limiting the time spent on the side of the vehicle directly adjacent to oncoming traffic can greatly reduce the risk of injury. Some prevention strategies include:

- If next to a guardrail, secure the load on the non-traffic-facing side first, and then pull forward to an area with more working space to finish securement, if can be done safely;
- Use the winch controls on the furthest side away from traffic, if equipped with dual winch controls; and
- Enter and exit the tow truck cab from the side furthest from traffic.

Recommendation No. 2: **High-visibility safety apparel, such as safety vests, should be worn at all times when working at roadside.**

The tow truck driver in this case was not wearing a safety vest at the time of the fatal incident. Furthermore, the victim was positioned on the traffic-facing side of the tow truck, with his back turned while securing the final rear driver side corner of the towed vehicle to the rollback wrecker. This reduced his view of approaching traffic. In an effort to prevent pedestrian traffic incidents, tow truck drivers, and all other workers exposed to the risks of highway traffic, should wear high visibility safety apparel to enhance visibility of the human form at roadside. For towing operators, safety vests and all other high visibility clothing should be classified as American National Standards Institute (ANSI) 107 Type R and have a Class rating of 2 or 3 (Figure 4).

Type R clothing is the ANSI specified type for tow truck drivers. Class 2 clothing contains the minimal amount of high-visibility materials and may be used when traffic is traveling at speeds of less than 50 mph, while Class 3 is required to contain even more high-visibility materials and should be used when traffic is traveling at speeds in excess of 50 mph. The posted speed limit in the incident area was 70 mph, which would have required an ANSI 107 Class R Type 3 vest. High-visibility garments are required to display the type, class, and flame resistant status (FR); check the garment tags to ensure you are making the appropriate selection.

To decrease the likelihood that tow operators will forget to don their vest before exiting the cab, employers should also consider a policy requiring that tow operators wear their vests at all times while operating a tow truck.

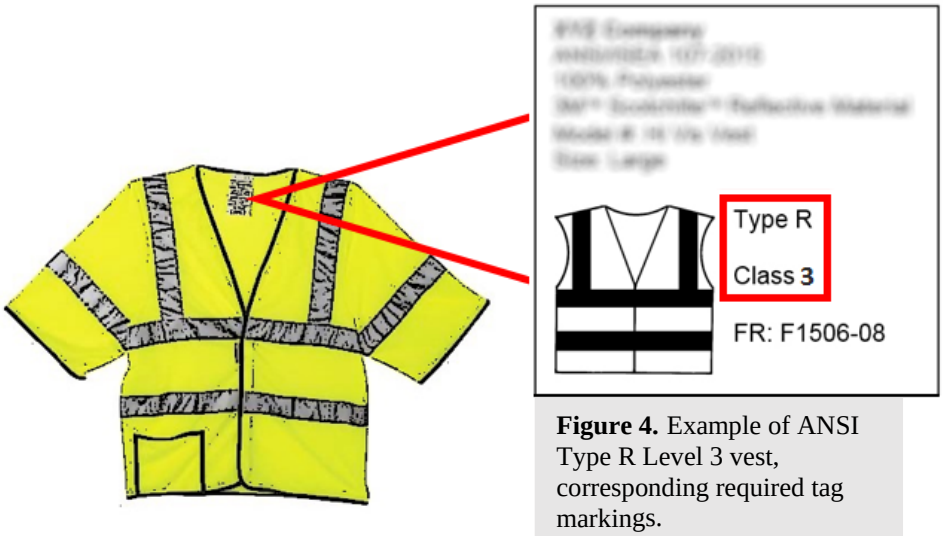

Figure 4. Example of ANSI Type R Level 3 vest, corresponding required tag markings.

Recommendation No. 3: **Tow truck operators should work in conjunction with law enforcement to secure the work area prior to loading and securing a vehicle.**

Towing operators often must work with their backs turned to approaching traffic while securing loads. Additionally, roadway shoulders, or lack thereof, are often not designed to safely accommodate a pedestrian working next to a large vehicle. Kentucky FACE recommends that tow operators request traffic-control assistance from law enforcement when they need to perform towing duties in an area directly adjacent to vehicle traffic. Loading and securing the vehicle should not take place until an officer is present. If an officer is present before the arrival of a tow operator, the officer should remain there and assist until the job is completed.

At a minimum, law enforcement officers should leave their light bar engaged during the entire duration of the loading procedures. In instances where the tow truck driver is lacking shoulder space to safely work on the traffic-facing side of the tow truck, law enforcement officers should position their police cruisers to temporarily block the adjacent travel lane until towing procedures are finished.

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

While more time consuming, placing emergency cones and other warning devices increases safety by providing passing drivers an advance warning to proceed cautiously. When setting the reflective cones, operators should carry the cone in front of them to increase visibility to passing drivers. Tow operators should never place, retrieve, or adjust cones with their back turned to the travel lane. 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, depending on the direction the truck is facing the adjacent traffic lane. 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.

The tow operator in this case did not deploy portable emergency warning devices prior to beginning towing procedures. The incident occurred on a straight stretch (no curve) of a divided highway, so the cones should have been placed at 10 feet, 100 feet, and 200 feet towards the approaching traffic.

Recommendation No. 5: **There should be increased public awareness of the "Move Over Law" in Kentucky.[2]**

Kentucky's Move Over Law was enacted in July, 2000, and revised in June, 2003. It is a law designed to protect police officers and other emergency workers stopped alongside the roadway. The law requires motorists to approach an emergency vehicle with caution when it is stopped with its lights flashing. Motorists must change lanes away from the emergency vehicles if they are traveling on a four lane roadway and are able to 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. One of the two witnesses to the incident stated that he saw no traffic at the time of the incident that should have prevented the driver of the approaching vehicle from moving over to the next lane upon her approach.

Both in-state and out-of-state drivers may not be aware of this law and the state should consider enhanced signage whether by billboards, electronic signs or roadway signs informing them of the law.

Recommendation No. 6: **Tow truck operators should consider National Traffic Incident Management Responder Training, regardless of company size.[3]**

The tow truck driver had not completed Traffic Incident Management (TIM) training according to the employer. Tow truck drivers should complete TIM training to be knowledgeable of roadside assistance best practices and to be aware of potential hazards that are inherent to the job. 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 on the National Traffic Incident Management Responder Training can be found by visiting the SHRP2 page on the FHWA website at: https://www.fhwa.dot.gov/goshrp2/Solutions/Reliability/L12_L32A_L32B/National_Traffic_Incident_Management_Responder_Training_Program

Please take the time to complete our brief survey regarding this report: (https://uky.az1.qualtrics.com/jfe/form/SV_beALfD4sz9ylHfL**)**

Electronic access to this full report can be found here: (http://www.mc.uky.edu/kiprc/face/reports/pdf/16KY052.pdf)

KEYWORDS

Towing
Distracted driving
Move Over Law
Tow truck driver
Roadside assistance
Night time towing
Traffic incident management
Highway incident management

REFERENCES

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[2]"KOHS KSP launch 'Move Over' campaign to protect those who protect us." News Release. Kentucky Transportation Cabinet. http://transportation.ky.gov/Highway-Safety/Documents/press_release_move-over-campaign_2015.pdf

[3]"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_Incident_Management_Responder_Training_Program

PHOTO CREDIT

Figure 1: Kentucky FACE Program
Figure 2: Autotrader.com
Figure 3 A & B: Google Maps
Figure 4: Walmart.com

ACKNOWLEDGEMENTS

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PROGRAM FUNDING

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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 Kentucky Injury Prevention and Research Center (KIPRC). KIPRC is a bona fide agent for the Kentucky Department for Public Health.

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