

MIFACE Investigation Report: #14MI095

SUBJECT: Food Pantry Volunteer Pinned by a Table Against a Wood Cabinet When the Table was Struck by Backing Vehicle

Summary

In fall 2014, a food pantry volunteer in her 60s died when a sports utility vehicle (SUV) backed into a table, causing the table to pin the volunteer against a wood cabinet (Figure 1). The decedent and another volunteer were sitting in folding chairs behind the table, which was located approximately 12-15 feet from the overhead door opening. A third volunteer was sitting on the table. The SUV driver was driving the vehicle for the first time. To access the food pantry distribution area, the vehicle was backed up a slightly inclined concrete apron. The driver stated to the responding police department that, as he was backing up the concrete apron to the garage, his foot slipped off the brake pedal, hit the gas pedal, and accelerated in reverse. Other food pantry volunteers, who could see what was happening, yelled to the driver to stop the vehicle. The driver was unable to stop the vehicle before it struck the volunteer sitting on the table. The vehicle had enough momentum to push the table to the back wall. The decedent was pinned by the table against a wood cabinet. Emergency response was summoned as her fellow volunteers initiated CPR. Emergency response arrived, continued resuscitative efforts while the decedent was transported to a nearby hospital. She was declared dead upon arrival to the emergency room.



Figure 1. Overview of incident scene with remediation barrel placed in front of the garage door. Table positioned in front of cabinet and freezer as it was at the time of the incident.

Contributing Factors

- Backing vehicles into pantry distribution area
- Position of table in direct line with backing vehicles

RECOMMENDATIONS/DISCUSSION

- Develop a “traffic control plan” to minimize the need for clients to back a vehicle near or into the food pantry/distribution center. The plan should review parking options and

designate vehicle parking spaces outside of the pantry area for clients to pick up pantry goods and clothing.

- If the configuration of a food pantry does not permit outside parking and backing a vehicle near or into the food pantry/distribution center is necessary, the food pantry should designate and train a volunteer to act as a spotter and position work tables and volunteers out of the line of vehicle travel.
- Volunteers should wear high-visibility vests while distributing the food to client vehicles.
- Food pantry volunteers should be trained on hazard identification/hazard awareness and how to control the identified hazards.

BACKGROUND

In fall 2014, a food pantry volunteer in her 60s died when a sports utility vehicle (SUV) backed into a table, causing the table to pin the volunteer against a wood cabinet. MIFACE learned of this incident from the MIOSHA 24-hour hotline. The pastor of the church sponsoring the food pantry was contacted and agreed to a MIFACE site visit. The MIFACE researcher met with the church's Director of Community Services at the incident site. During the course of this investigation, the death certificate and police and medical examiner reports were reviewed. Pictures used in this report are from the MIFACE site visit and responding police department. Figure 6 has been modified to maintain driver confidentiality.

The church had been operating the food pantry for over 20 years. The pantry had always had been set up as on the day of the incident. The food pantry was open one day per week, from approximately 9:30 a.m. - 3:00 p.m. The decedent had volunteered with the food pantry for three years. She routinely volunteered in the clothing sorting/distribution area, but on the day of the incident, was volunteering in the food distribution area. The same crew of volunteers staffed the food pantry for the past several years.



Figure 2. Overview of remediation to prevent backing into the distribution area



Figure 3. Carts now used to bring food to the clients

Remediation Activities following the fatality

- Vehicles are not permitted to back into the distribution area and the overhead door entrance is blocked with cones and a construction barrel (Figure 2).
- An area outside of the building is designated for vehicles to park.
- Volunteer staff brings food items to the vehicles using carts (Figure 3).

Following an initial MIOSHA Safety Division investigation, the death was determined to be non-program-related.

INVESTIGATION

The incident occurred in the early afternoon.

The incident occurred in a church-owned “community center” building located north of the church. The west “third” of the building contained offices and community space. The “middle” of the building was an area where clothes were sorted, and the easternmost space was a garage-type area where the food pantry was located.

The east side of the garage had an overhead door. A concrete ramp with a slight incline led to the garage. The garage floor was slightly higher than the concrete ramp, thus there was a bump over (lip) which backing vehicles had to accelerate over to enter the garage.

Along the west wall of the garage were storage boxes, a wood cabinet and a refrigerator. An 11’4” long by approximately 31” high solid, wood table was situated north-south, parallel to the west wall and in-line with the open garage door. The MIFACE researcher attempted to move the table; the table was quite heavy and difficult to move.

The decedent and four coworkers were distributing the food pantry items. The decedent and another volunteer (Volunteer A) were seated on folding chairs behind (west side) the table. The decedent was seated in front of



Figure 4. Incident scene with table pulled away from the west wall so emergency care could be given



Figure 5. Damage to the west wall by the force of the table being pushed by the SUV

the wooden cabinet. Seated to her right was Volunteer A, who was in front of the storage boxes. Another volunteer (Volunteer B) was seated on the east side of the table in front of Volunteer A. The table was positioned approximately 12-15 feet from the open overhead garage door.

It was the first time ever that the SUV driver had driven this vehicle although he had previously performed the same back up procedure multiple times before with other vehicles. The driver pulled up in the front of the building and signed in. He then then drove the vehicle to the back of the building to pick up the food. The driver pulled forward, and then backed into the garage area through the open garage door. He was backing up gradually. Per his statement to the police, he normally stopped when he approached the opening of the door. The driver stated to the responding police department that, as he was backing up the concrete apron to the garage, his foot slipped off the brake pedal, hit the gas pedal, and accelerated in reverse.

The workers yelled to the driver to apply the brakes, but he was unable to do so in time. One volunteer jumped out of the way of the backing vehicle and was uninjured. Volunteer B was unable to get off the table and out of the way in time when the rear of the SUV struck the table. The SUV continued pushing the table to the west and ultimately against the west wall, pinning the decedent against the wood cabinet and Volunteer A into the stacked boxes. The south end of the table took the brunt of the force. The north end of the table struck a freezer.

The decedent's coworkers moved the table and began CPR while waiting for emergency responders to arrive. Emergency responders assumed care, and transported the decedent to a local hospital where she died.

The driver moved the vehicle forward approximately three feet, placed the car in park, turned it off, and exited the vehicle. His passenger moved the car outside the garage.

The responding police department noted damage on the bumper and hatchback consistent with hitting the table. The area of the wall at the back of the garage where the refrigerator and cabinets were located was pushed into the building. The police department personnel lined the table up with damage to the refrigerator cabinet and boxes along the back wall – the table lined up with all of these items.

The driver informed the responding police that he was currently on prescription medications however he stated he was never informed by any doctor that he shouldn't drive. His passenger informed the police that the driver had a neuropathy.



Figure 6. SUV involved in the incident. Note damage to the rear of the vehicle.

Volunteer A sustained chest injuries and Volunteer B sustained a broken leg as a result of the vehicle's bumper pinning his legs against the table.

The responding police took a blood sample from the driver. The driver's blood toxicology showed the presence of active and inactive marijuana metabolites, morphine and trazadone. It is unknown if these substances were contributory to the incident.

CAUSE OF DEATH

The cause of death as listed on the death certificate was blunt force injuries of the torso due to (or as a consequence of) being struck by a motor vehicle. The decedent's blood toxicology was negative for all screened substances.

RECOMMENDATIONS/DISCUSSION

- Develop a "traffic control plan" to minimize the need for clients to back a vehicle near or into the food pantry/distribution center. The plan should review parking options and designate vehicle parking spaces outside of the pantry area for clients to pick up pantry goods and clothing.

This incident demonstrates the importance of having a traffic control plan to ensure worker (volunteer) safety at the center. The traffic control plan should indicate where and how vehicles and workers on foot interact within the work zone. The plan should describe communication practices and work procedures for the volunteers and also include vehicle movement, including backing procedures within the distribution area. This is especially true in situations when vehicles are traveling through areas of the distribution center where workers are on foot. It is important that the traffic control plan be clearly understood by all volunteers. Items to consider when developing a traffic control plan could be:

- Hazard awareness training regarding backing vehicles and traffic control
 - The use of safety devices, such as cones or barrels designating vehicle traffic and parking
 - The use of spotters when workers are distributing food and other necessities when there is active traffic in the distribution area to enhance volunteer safety
 - Providing spotter training
 - Minimize the need for vehicles to back up
 - Communication with clients regarding the need to watch for volunteers distributing food.
 - The use of high visibility vests
- If the configuration of a food pantry does not permit outside parking and backing a vehicle near or into the food pantry/distribution center is necessary, the food pantry should designate and train a volunteer to act as a spotter and position work tables and volunteers out of the line of vehicle travel.

A good option to enhance volunteer safety when client traffic patterns require that a vehicle needs to back up, is to use a spotter. A spotter can help the driver safely maneuver in, out of, and through the distribution/pickup area. The spotter provides the "vision" that the driver does not have when backing up and helps reduce their "blind spots."

When using a spotter, it is of the utmost importance that the safety of this individual be taken into account. The spotter needs to be trained and educated in the duties of a spotter, including identifying the hazards and hazard control methods while performing those duties. The spotter needs to wear a distinctive and highly visible safety vest (ANSI/107-1999 Class 2 minimum). The spotter needs to be out of vehicle traffic lanes and out of the direct path of the moving/backing vehicle's movement. Clients should be instructed, as they pull into the area for supplies, that if the spotter is not visible to him/her, then the driver should stop until positive visual contact with the spotter has been made. The driver should not move the vehicle unless they get an all clear sign from the spotter.

Additionally, if backing vehicles into the distribution area is necessary based on the pantry configuration, work tables for volunteers and the volunteers themselves should be positioned so they are not in the line of travel of the backing vehicles.

- Volunteers should wear high-visibility vests while distributing the food to client vehicles.

It is extremely important for the volunteers working in vehicle traffic areas to wear a high-visibility vest while distributing the food to client vehicles. The high visibility vest makes the volunteers more visible to drivers. Like the spotters, it is suggested that all volunteers wear an ANSI /ISEA1 107-1999 class 2 retro reflective vest.

- Food pantry volunteers should be trained on hazard identification/hazard awareness and how to control the identified hazards.

Food pantry volunteers can be exposed to multiple hazards, such as vehicle traffic (as in this incident), but also hazards such as ergonomic hazards (e.g. lifting awkwardly-sized food boxes, heavy items), slip and fall hazards (e.g. wet floors, icy outside conditions), client behaviors (e.g. threatening behaviors, aggressiveness, etc.), other client issues (e.g., client health, such as what to do if a client has a heart attack, slips and falls, etc.), etc. Food pantries should identify hazards their volunteers may be exposed to during the course of their "work", develop means to minimize those hazards, and train their volunteers about the hazards and the control options identified.

KEY WORDS: Backing vehicle. Food pantry, Traffic control plan, High-visibility vest, Other Services

RESOURCES

- *City Worker Killed When Struck by a Dump Truck in Washington State.* New York Case Report 00WA041. Release Date: August 5, 2004
<http://www.cdc.gov/niosh/face/stateface/wa/00wa041.html>
- *A Construction Inspector Dies After Being Backed Over by a Ten-wheel Asphalt Dump Truck.* California FACE Investigation 00CA005
<http://www.cdc.gov/niosh/face/stateface/ca/00CA005.html>
- *Construction Laborer Killed When Run Over by Dump Truck in Highway Work Zone – Wisconsin.* Wisconsin FACE 00WI074
<http://www.cdc.gov/niosh/face/stateface/wi/00WI074.html>
- *Municipal Police Officer Fatally Injured When Struck by a Backing Dump Truck – Massachusetts.* Investigation: # 12-MA-016-0. Release Date: June 18, 2014
<http://www.cdc.gov/niosh/face/pdfs/12MA016.pdf>
- *Municipal Truck Driver Dies After Being Backed Over by Dump Truck.* Michigan Case Report: 08MI040 <http://www.cdc.gov/niosh/FACE/stateface/mi/08mi040.html>

MIFACE (Michigan Fatality Assessment and Control Evaluation), Michigan State University (MSU) Occupational & Environmental Medicine, 909 Fee Road, 117 West Fee Hall, East Lansing, Michigan 48824-1315; <http://www.oem.msu.edu>. This information is for educational purposes only. This MIFACE report becomes public property upon publication and may be printed verbatim with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company. All rights reserved. MSU is an affirmative-action, equal opportunity employer.

December 21, 2015