

# PREVENTING ROLLOVER, BACKOVER, & RUNOVER ACCIDENTS

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**About the presenter:**

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**MTU**engineering

GEOLOGICAL AND MINING  
ENGINEERING AND SCIENCES





# Avoiding Rollover Accidents



# Fatality Alert

MINE FATALITY – On June 17, 2022, a contract miner died when the compactor he was operating overturned, pinning him beneath the cab. As the miner was backing up, the left tire went off the edge of a four-foot embankment, causing the compactor to overturn.



# Fatality Alert

**MINE FATALITY** – On February 26, 2023, a contract miner died while operating a bulldozer. The bulldozer traveled over the edge of an access road and rolled feet down an embankment, ejecting the miner from the operator's cab. The miner was not wearing a seatbelt.





## OVERVIEW

On January 2, 2024, at 4:46 a.m., Luis Rivera, a 46 year-old customer truck driver with 19 years of over-the-road truck driving experience, died when his truck's trailer tipped over onto the cab of the truck. Rivera was in the process of unloading excess material from the trailer when the accident occurred.



## **OVERVIEW**

On March 14, 2017, Julio C. Flores (age 52), a customer truck driver, was fatally injured when he exited the cab of his tractor trailer, walked to the rear of the trailer, and was engulfed by sand dumped from his trailer.

# Avoiding Runover Accidents

## **Fatality Alert**

**MINE FATALITY** – On January 30, 2025, a miner died when a front-end loader operator unknowingly lowered a pallet of stone onto him.



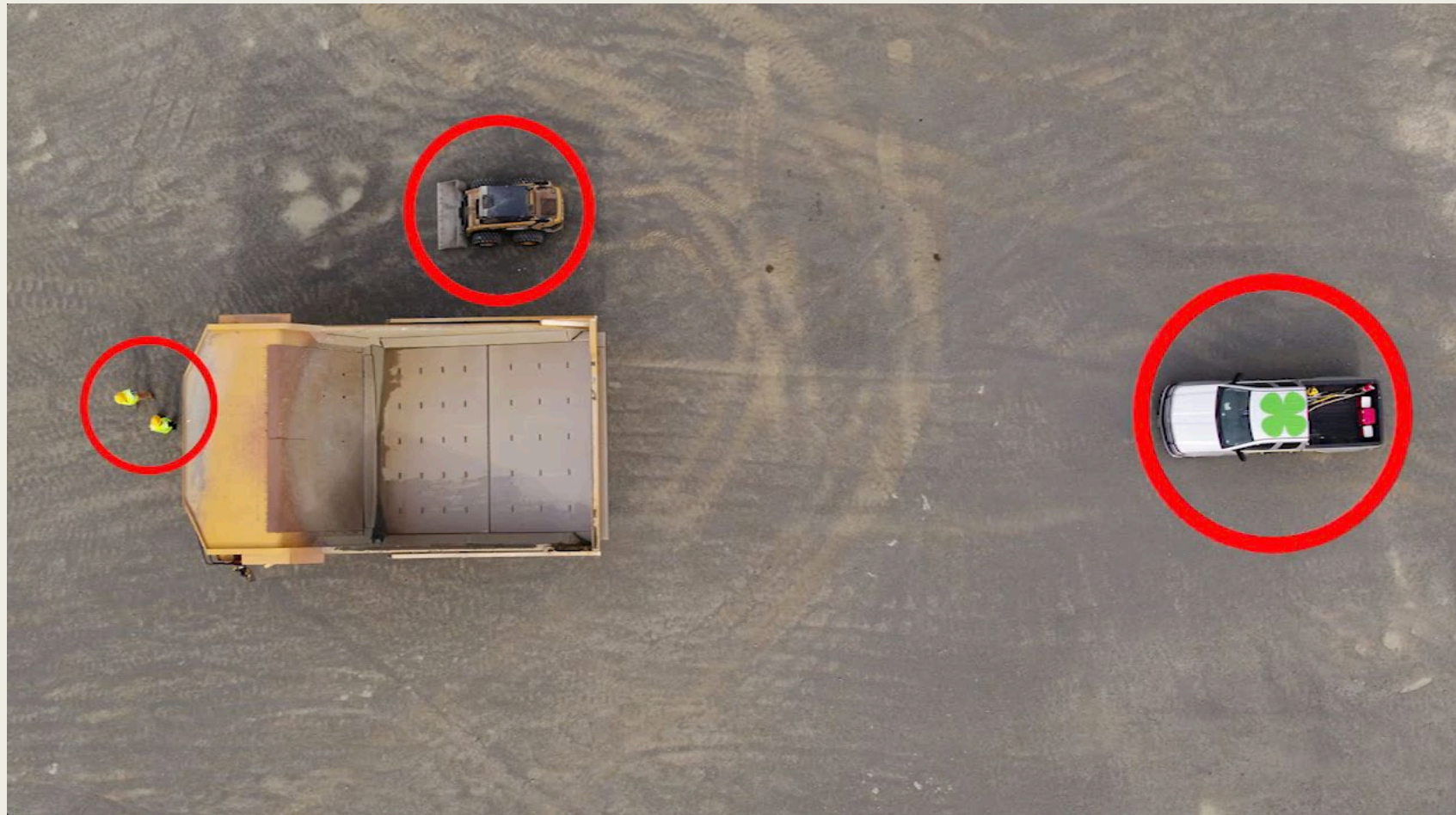
APPENDIX C – View from Front-end Loader Approaching the Staging Platform While Transporting a Loaded Pallet



# Avoiding Runover Accidents

- Don't just discuss blind-spots... Have non-equipment operators *physically* sit in equipment and experience what the operator can and cannot see.
- Always have a set protocol of how you approach equipment or get the operators attention.

This haul Truck Operator *cannot* see any of the people or vehicles!



# Cedarville Michigan, 2018



# Operator Training- *Keep buckets/attachments as low as possible*

## **Fatality Alert**

MINE FATALITY – On September 18, 2024, a miner died when a front-end loader struck him after he exited his truck.



# Texting while operating equipment



## OVERVIEW

On March 9, 2023, at 1:55 p.m., Don Reynolds, a 60 year-old delivery truck driver with over five years of delivery truck driving experience, died when a front-end loader struck his truck and trailer. Reynolds was underneath his truck; the impact caused his truck's left rear dual wheels to roll onto him.

# Stay in the Cab and Stay Alive!

**METAL/NONMETAL MINE FATALITY** – On April 17, 2014, a 58-year-old truck driver with 3½ years of experience was killed at a sand and gravel mine. An excavator was loading material in a haul truck parked at the pit. When the victim exited the truck, he was struck by the excavator bucket and pinned against the truck.



# Have Designated Inspection and Tarping Areas AWAY from Active Areas

**METAL/NONMETAL MINE FATALITY** – – On July 23, 2014, a 51-year-old contract truck driver with 30 years of experience was killed at a cement operation while delivering a load of fly ash. The victim exited the truck to remove the tarp. A front-end loader backed down a ramp and struck the victim, pinning him against the truck.



# Parking Procedures...

Always out of gear, Always parking brake, Always wheel chocks

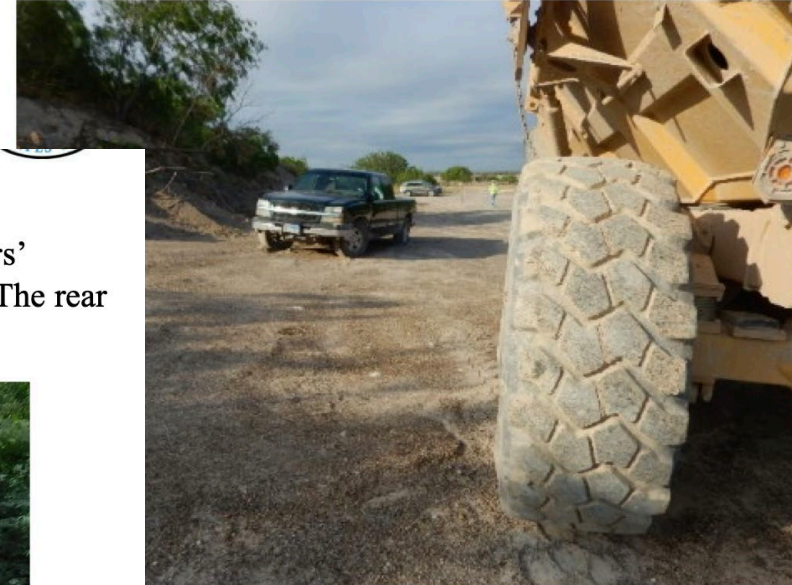
## Fatality Alert

**MINE FATALITY** – On December 13, 2021, a customer truck driver (victim) stopped at a designated tarping area and was assisting another driver with a rear trailer indicator light. The victim's truck moved forward and pinned him against the back of the other driver's truck.



## Fatality Alert

MINE FATALITY – On April 19, 2021, a miner stopped his haul truck in front of his personal truck to get his lunch. While standing and eating his lunch, the haul truck rolled forward, pinning the miner between the haul truck and his personal truck.



## Fatality Alert

MINE FATALITY – On August 11, 2021, a 53-year-old contract truck driver with ten years' experience was fatally injured while conducting a pre-operational examination of a truck. The rear wheels of the vehicle struck the truck driver when the truck rolled forward.



These are both very slow speed fatalities.

# Don't lose situational awareness...

## Fatality Alert

MINE FATALITY – On July 12, 2024, a rock truck operator was seriously injured after being struck by the bucket of a front-end loader. While walking to her parked truck, the rock truck operator passed under the raised front-end loader bucket as it was being lowered to the ground during maintenance. On July 23, 2024, the rock truck operator died from her injuries.





This  
Radial Stacker  
Travels at  
0.5 MPH

#### OVERVIEW

On May 2, 2023, at approximately 12:30 p.m., Izak Wixon, a 19 year-old ground man, with approximately three months of mining experience, died when his left foot contacted the left drive tire of an automated telescopic portable radial stacker (radial stacker). Wixon became trapped and the radial stacker's tires ran over Wixon.

# Pre-Operational Checks

(Pre-Trip, Pre-Op, etc.)

- Do a daily Pre-Op on all equipment, checking things like back-up alarms, cameras, lights, Brakes, Horn, Signals, etc.
- If it's not safe, don't operate it!
- Falsifying a Pre-Op document is not only dangerous, but if it causes an accident can mean severe civil and criminal penalties for the operator

## Establish Protocols for working around equipment

- Horn taps before moving
- Back-up alarm requirements
- How to signal operators or approach equipment

# Before you move a vehicle...

- 1. Walk around Vehicle
- 2. Remove Wheel Chocks
- 3. Get into Vehicle
- 4. Put on Seat Belt
- 5. Start Engine
- 6. Release Parking Brake
- 7. Put Vehicle in gear
- 8. Check Mirrors
- 9. Tap Horn
- 10. Move Vehicle

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*This Version  
can save a  
life!*

# Back-UP Alarms

(Traditional vs White-Noise alarms)



# Have set procedures for for LOTO or communicating brief production pauses.

## Fatality Alert

**MINE FATALITY** – On September 8, 2023, a miner died after entering a hopper to clear an obstruction. A front-end loader dumped two loads of crushed limestone into the hopper with the miner inside.



# Questions?

- Matt Portfleet
- Michigan Tech Mine Safety & Health
- [Mining@mtu.edu](mailto:Mining@mtu.edu)

In-Person and ZOOM MSHA Part 46/48 Training.

Annual Refresher & New Miner Classes



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