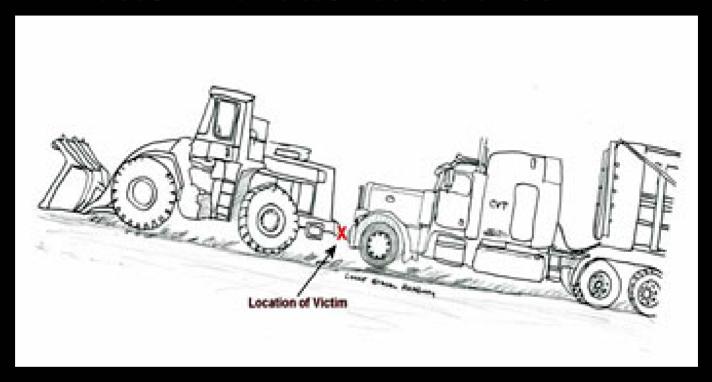
This presentation is for illustrative and general educational purposes only and is not intended to substitute for the official MSHA Investigation Report analysis nor is it intended to provide the sole foundation, if any, for any related enforcement actions.

## **Coal Mine Fatal Accident 2004-24**



Operator: J R Mining

Mine: Grays Fork Mine

Accident Date: November 9, 2004

Classification: Powered Haulage

Location: District 7, Clay County, KY

Mine Type: Surface

Employment: 5

Production 500 Tons/Day



On November 9, 2004, a 57-year old mine owner with 30 years of mining experience was fatally injured while helping to install a steel pull rope (tow rope) from the rear of a Caterpillar 980C front-end loader to the front pull hook of a stalled Peterbilt tractor-trailer coal truck. The front end loader inadvertently rolled backwards down the inclined roadway towards the tractor-trailer, pinning the victim between the two pieces of equipment.

# **ROOT CAUSE ANALYSIS**

<u>Causal Factor:</u> At the time of the accident, the victim was located in a hazardous position between the Caterpillar 980C front end loader and the Peterbilt coal haul truck with his back to the front end loader which was on a grade of approximately 19 percent.

<u>Corrective Actions:</u> Procedures and work practices were developed to make it unnecessary for miners to work between mobile equipment. Training was provided for miners.

<u>Causal Factor:</u> The park brake on the Caterpillar 980C front end loader was not set while the equipment was on an approximate 19 percent grade.

<u>Corrective Actions:</u> Miners and equipment operators were retrained to set the park brake when there is danger of inadverant movement of machinery when persons are near.

<u>Causal Factor:</u> The end loader operator did not have visual contact with the persons on the ground while the end loader and the truck were being connected by the pull rope.

<u>Corrective Actions:</u> Procedures were established and miners were retrained to maintain visual communications between equipment operators and any miner working in the area.

# CONCLUSION

The accident occurred while the victim was helping to install a steel pull rope from the rear of a Caterpillar 980C front end loader to the front pull hook of a stalled Peterbilt tractor-trailer coal truck. The front end loader inadvertently rolled backwards down the inclined roadway towards the tractortrailer, pinning the victim between the two pieces of equipment. The accident resulted from working in a hazardous location, failure to secure (set parking brakes) the front end loader, and failure to maintain visual contact between the equipment operator and miners working in the area.

## **ENFORCEMENT ACTIONS**

#### 104(a) Citation was issued for a violation of 30 CFR 77.1607(b).

The mobile equipment operator of the Caterpillar 980C front end loader did not have full control of the end loader on an approximate 19 percent grade haul road. The rear-end of the end loader was being attached to the front of a stalled Peterbilt tractor-trailer truck with a steel pull cable measuring 1-inch in diameter by 20 feet long. The end loader inadvertently rolled backwards down hill and pinned a worker between the two pieces of equipment, causing fatal crushing injuries.

## 104(a) Citation was issued for a violation of 30 CFR 77.1607(g).

The mobile equipment operator of the Caterpillar 980 C front end loader did not make certain by signal or other means, that all persons were clear before the end loader moved. The end loader moved backwards resulting in a worker being pinned between two pieces of equipment, which caused fatal crushing injuries.

## **BEST PRACTICES**

- Ensure that haulage equipment is compatible with all conditions and haulage road grades at the site.
- Ensure that vehicles have sufficient traction for surface conditions.
- Avoid pulling or pushing of vehicles as a routine practice.
- Ensure employees are properly instructed on proper towing procedures.
- Monitor work habits routinely and examine work areas to ensure that safe working procedures are being followed.
- Caution miners to avoid the hazards presented by pinch points.