

M-Class Mining  
LLC  
MC #1 Mine  
Macedonia, IL

April 11, 2010

# COAL MINE FATALITY

APRIL 11, 2010

- A 61 year old iron worker/mine fire boss with 20 years of mining experience was fatally injured while installing pre-fabricated metal stairs on the side of a fan housing.
- The stair stringer had been hoisted into place and clamped at the top with two “locking pliers-type” C-clamps.
- The bottom of the inclined stringer was lying on a 6” x 6” timber.
- To level the stair treads, a 6” x 6” timber was going to be replaced with a 4” x 4” timber.

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- To replace the 6" x 6" timber, rigging was fastened near the lower part of the stringer while the victim was standing on the ground holding the handrails.

**What Hazards Were Present?**

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- As the lower end of the stringer was hoisted by crane, the clamps opened and the top end of the stringer fell.
- This caused the bottom end of the stringer to pivot up and out.
- This pushed the victim backward approximately 8 feet until he contacted the nearby man lift being used to position another worker to clamp the stringer in place.
- As he was backed against the manlift, the victim was struck in the chest by the bottom step of the stair stringer.

# ACCIDENT SCENE



# ACCIDENT SCENE



# LOCKING C-CLAMPS



# PREVENTION

**WHAT COULD HAVE PREVENTED  
THIS ACCIDENT?**



# ROOT CAUSE

**WHAT WAS THE ROOT CAUSE OF  
THIS ACCIDENT?**

# MSHA ROOT CAUSE

- **INADEQUATE MANAGEMENT CONTROLS**
  - **The policies and controls in place at this construction project did not ensure that persons would stay clear of hoisted loads.**

# JOB PROCEDURES

**WHAT ALTERNATE JOB  
PROCEDURES COULD  
HAVE PREVENTED THIS  
ACCIDENT?**

# BEST PRACTICES

- Ensure that all personnel stay clear of hoisted loads and areas where loads may fall if hoisting fails.
- Know the limitations of temporary supports and ensure they are used within their specifications.
- Ensure all components are adequately blocked and secured to prevent unintended motion.
- Use taglines on loads to be hoisted that will need steadying or guidance.

# BEST PRACTICES

- Ensure that crane operators communicate with other workers in close proximity to loads that are going to be moved.
- Ensure that personnel are trained to recognize hazardous work procedures.
- Discuss work procedures and identify all hazards associated with the work to be performed, along with the methods to protect personnel.

# MSHA ACCIDENT PREVENTION TIP

- Before performing any routine tasks, review the procedures required to do the job safely and learn to recognize and eliminate hazardous conditions that may be encountered. New or non-routine tasks may not have established safety procedures in place.
  - Before starting, analyze the potential hazards in performing the task and make a plan on how to complete the task safely.
  - Pause in the middle of the task to observe the progress and any unexpected and potential hazards that may be developing.
  - After completing the task, evaluate all procedures used. Documentation and photos of each step of the task will permit others to observe if potential hazards were encountered that could have resulted in an injury.
- Analyze the procedures used to safely and successfully complete the task and incorporate them into the established practices.

