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 2006-23



Operator: Jacob Mining Company LLC

Mine: No. 1 Mine Accident Date: April 7, 2006

Classification: Powered Haulage

Location: Dist. 4, Mingo County, West Virginia

Mine Type: Underground Coal Mine

Employment: 45

Production: 3,500 Tons/Day



At approximately 2:15 p.m. on Friday, April 7, 2006, a 48-year-old superintendent, was fatally injured in a powered haulage accident. The accident occurred as the victim was operating a 14-ton locomotive between the Toms Branch Switch and the North Marrowbone Creek Portal. As the locomotive traveled along the mine track, the victim was struck by a 4-inch thick steel crossbar (I-beam) when it entered the operator's cab. The steel I-beam crossbar, intended as roof support, was dislodged and hanging from the mine roof.

ROOT CAUSE ANALYSIS

<u>Causal Factor</u>: Jacob Mining Company LLC and Southern WV Resources LLC did not ensure compliance with the written procedures for installing roof support in road ways, as approved in the roof control plan. The approved roof control plan requires, "where crossbars are installed along haulage roadways they shall be provided with a means to prevent the crossbar from falling in the event the supporting legs are accidentally dislodged." This provision was not complied with at the accident site. Additionally, 138 additional steel crossbars were improperly installed from the Marrowbone Creek Switch to the Number 8 Belt Head.

<u>Corrective Action</u>: Page 6, Item 11 of the roof control plan was revised to require an examination by a certified foreman of all additional roof support. The examination must be conducted on the next preshift examination following the installation of the support. The foreman shall further verify that the crossbars have been properly secured and a record of the observation will be maintained in the preshift or onshift examination record. The mine operator trained all employees on the revised provision of the roof control plan.

ROOT CAUSE ANALYSIS

<u>Causal Factor</u>: A pre-shift examination of the working areas, from the Tom's Branch track switch to the Number 8 belt conveyor drive, was not conducted. Dates, times, and initials were not placed to indicate that an examination was conducted and a record of the required examination was not maintained. The mine operator did not conduct the required examinations because it was believed that Southern West Virginia Resources was responsible for conducting examinations of the areas in which Southern West Virginia Resources was working. The mine operator did not ensure that a workplace examination had been conducted.

<u>Corrective Action</u>: The mine operator re-instructed all miners in the provisions of the roof control base plan and revisions. All certified foreman and pre-shift examiners were instructed in the proper procedures for conducting and recording examinations, and procedures for correcting workplace hazards identified during these exams.

§104(a) citation number 7248622 was issued to Jacob Mining Co., LLC for a violation of 75.220(a) (1).

The approved roof control plan was not being complied with in the track entry at crosscut no. 212 between Tom's Branch Switch and North Marrowbone Creek Portal. A roof fall had occurred at crosscut number 212. The fall area was being supported by five 4-inch steel beams (approximately 14 feet in length) across the track, four 4-inch steel beams (approximately 6 feet in length) installed parallel to the track, and crib blocks were installed between the parallel steel beams and the unsupported mine roof. The steel crossbars were not secured to prevent them from falling when at least one of the supporting legs was accidentally dislodged by a piece of machinery. One of the 4-inch thick, 6-foot long, beams installed parallel to the track entry struck the locomotive operator resulting in fatal injuries. The condition contributed to a fatal mining accident which occurred on April 7, 2006. Additionally, 138 unsecured steel crossbars were present along the main line track entry starting at the Marrowbone Creek Switch at crosscut 118 and extending to the Toms Branch Switch at crosscut 177.

§104(a) citation number 7248623 was issued to Southern WV Resources, LLC for a violation of 75.220(a)(1).

The approved roof control plan was not being complied with in the track entry at crosscut no. 212 between the Tom's Branch Switch and the North Marrowbone Creek Portal. A roof fall had occurred at crosscut number 212. The fall area was being supported by five 4-inch steel beams (approximately 14 feet in length) across the track, four 4-inch steel beams (approximately 6 feet in length) installed parallel to the track, and crib blocks were installed between the parallel steel beams and the unsupported mine roof. The steel crossbars were not secured to prevent them from falling when at least one of the supporting legs was accidentally dislodged by a piece of machinery. One of the 4-inch thick, 6-foot long, beams installed parallel to the track entry struck the locomotive operator resulting in fatal injuries. The condition contributed to a fatal mining accident which occurred on April 7, 2006. Additionally, 138 unsecured steel crossbars were present along the main line track entry starting at the Marrowbone Creek Switch at crosscut 118 and extending to the Toms Branch Switch at crosscut 177.

§104(a) citation number 7248624 was issued to Jacob Mining Co., LLC for a violation of 75.360(a)(1).

An adequate preshift examination was not conducted in the track entry from the Marrowbone Creek Switch at crosscut 118 to the Tom's Branch Switch at crosscut 177. The hazardous condition of 138 unsecured steel crossbars existed along the main line track entry. Additionally, a pre-shift examination of the working areas from the Tom's Branch switch to the Number 8 belt conveyor drive was not conducted. A hazardous condition existed from crosscut 212 to 213 in the track haulage entry, where steel crossbars were installed as roof support across the track entry, and were not supported to prevent being dislodged if contacted by equipment. A proper preshift examination would have identified, recorded and corrected the hazardous conditions. The required dates, times and initials were not posted from the Tom's Branch track switch to the number 8 belt conveyor drive to indicate an examination had been conducted and a required record of the examination was not maintained. The condition contributed to a fatal mining accident which occurred on April 7, 2006. Jacob mining asserted that Southern West Virginia Resources, LLC was conducting the required examinations from the Tom's Branch track switch to the number 8 belt conveyor drive where Southern West Virginia Resources, LLC was actively working.

§104(d)(1) citation number 7248625 was issued to Southern WV Resources, LLC for a violation of 75.360(a)(1).

A preshift examination of the working areas, from the Tom's Branch track switch to the number 8 belt conveyor drive, was not conducted. A hazardous condition existed from crosscut 212 to 213 in the track haulage entry, where steel crossbars were installed as supplemental roof support across the track entry, and were not supported to prevent being dislodged if contacted by equipment. A proper pre-shift examination would have identified, recorded and corrected the hazardous conditions. The required dates, times, and initials were not posted in the area to indicate an examination had been conducted and the required records of the examination were not maintained. The condition contributed to a fatal mining accident which occurred on April 7, 2006. The violative condition was readily visible and the operator has exhibited aggravated conduct beyond ordinary negligence. This violation is an unwarrantable failure to comply with the cited mandatory standard.

BEST PRACTICES

- Maintain adequate clearance for all powered haulage equipment.
- Conduct proper workplace and travelway examinations to identify, record, and correct close clearances, poor roof conditions and loose or broken roof support materials.
- Secure steel roof support beams and headers with straps or hitches to prevent accidental dislodging.
- Develop processes, involving all miners, designed to proactively identify and eliminate hazards and unacceptable risks.