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 2006-39

Operator: D & R Coal, Incorporated
Mine: Mine No. 2
Accident Date: October 6, 2006
Classification: Fall of Roof
Location: Dist. 7, Knox County, KY
Mine Type: Underground Coal Mine
Employment: 12
Production: 175 Tons/Day
On Friday, October 6, 2006, a 56-year old roof bolter operator with 12 years of experience roof bolting and 27 years of mining experience was fatally injured. The accident occurred when the victim traveled inby the last row of permanent roof supports while marking the mine roof for locations to install roof bolts in the last open crosscut. A section of roof rock measuring approximately 34-inches wide by 73-inches long by 6 to 8-inches thick fell from the unsupported area, causing fatal crushing injuries.
**ROOT CAUSE ANALYSIS**

*Root Cause.* The standards, policies, and administrative controls in use at this mine did not ensure that persons would not position themselves or travel inby the last row of permanent roof supports (roof bolts), and would not work or travel in an opening that created an intersection without additional roof support as is required by the approved roof control plan. The victim traveled inby permanent roof support to mark roof bolt locations. In addition, the unsupported crosscut had been cleaned of coal which allowed the roof bolting machine access to the unsupported area from the No. 7 entry. In order to completely clean the coal from the crosscut the scoop operators would have had to travel under unsupported roof. 30 CFR 75.202(b) requires that no person shall work or travel under unsupported roof.

*Corrective Action.* All employees received 8 hours of Annual Refresher Training conducted by OMSL, which included emphasis on the revised Roof Control Plan.
ROOT CAUSE ANALYSIS cont.

Root Cause: The mine foreman routinely operated equipment and failed to exercise the duties and responsibilities which would reasonably be expected to be conducted by a certified mine foreman. Adequate observations of the work habits and mining cycle would have detected the conditions and practices which contributed to the accident.

Corrective Action: Mine management should establish and train certified mine foremen in the responsibilities of the position and their expectations for compliance. The certified mine foremen did attend the training class.
§104(d) (1) Order, Number 6662671, was issued to D & R Coal Incorporated for a violation of 30 CFR 75.202(b).

An investigation of the fatal fall of roof accident which occurred on October 6, 2006, revealed that the operator failed to ensure that employees would not work or travel under unsupported roof. The victim, Mr. Joseph Seay, was found inby the last row of permanent roof supports, where a roof rock measuring 34-inches wide by 73-inches long by 6 to 8-inches thick fell on him causing fatal crushing head injuries. He was located inby the last row of permanent supports in the crosscut between the No. 7 and No. 8 entries. The unsupported area was 11 feet 4-inches and Seay was located 24-inches from the inby rib and his head was located 47-inches inby the crosscut from the last permanently installed roof bolt. There were four yellow chalk marks present on the mine roof indicating locations where roof bolts were to be installed. These chalk marks were located in the most outby area of the unsupported crosscut. Chalk mark measurements from permanently installed roof bolt in the No. 7 entry on the most outby rib were 40-inches, 47-inches, and 49-inches. Chalk mark measurements from the next inby permanently installed roof bolt were 49-inches, 42-inches, and 45-inches.
BEST PRACTICES

• Never work or travel under unsupported roof.
• Conduct a thorough visual examination of the roof, face, and ribs immediately before any work or travel is started in an area and thereafter as conditions warrant.
• Know and follow the approved roof control plan.
• Be alert to changing roof conditions.
• Mark unsupported areas, on all accessible sides, with highly visible markers.