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 2006-43

Operator: Double Bonus Coal Company
Mine: No. 65
Accident Date: October 30, 2006
Classification: Machinery
Location: Dist. 4, Wyoming County, West Virginia
Mine Type: Underground Coal Mine
Employment: 40
Production: 4,000 Tons/Day
At approximately 7:05 a.m. on Monday, October 30, 2006, a 31-year-old shuttle car operator was fatally injured when he was crushed between a shuttle car and the coal rib. The accident occurred when the victim and a section mechanic were attempting to free-up a sticking tram pedal on the #2 shuttle car. Both miners were positioned between the shuttle car and the inby solid coal rib of the #4 to #5 crosscut. The shuttle car was energized, the park brake was not set and the controls were set to fast tram. The shuttle car trammed and struck both miners. The section mechanic received life-threatening injuries when he was rolled along the solid coal rib.
ROOT CAUSE ANALYSIS

*Root Cause*: The operator’s management systems and policies did not ensure that the #2 shuttle car’s cross shafts and four journal bearings that support the two cross shafts were properly lubricated. Improper lubrication and fine coal particles caused the tram pedal to stick, causing an unsafe operating condition.

*Corrective Action*: The written mine training program was revised to include the following safety precaution under task training; “The operating decks on shuttle cars will be cleaned and properly greased prior to being placed into production on each shift.” Management and miners were trained in the new safety precaution.

*Root Cause*: The agents of the operator failed to take immediate action to remove the shuttle car from service until repairs could be made to correct the unsafe condition. The foreman had reason to know that the shuttle car was still in operation and did not take the expected and appropriate action of removing the machine from service.

*Corrective Action*: The operator must react immediately when aware an unsafe condition exists. The operator must immediately remove the equipment from service until repairs are completed that restore the equipment to a safe operating condition. The operator implemented additional management systems and oversight policies to ensure that repairs to equipment were adequately made in accordance with manufacturer’s specifications and recommendations. Management and maintenance personnel were instructed in the new systems and policies.
Root Cause Analysis cont.

**Root Cause:** The #2 shuttle car was not deenergized and blocked against motion before cleaning of the deck and repair of the tram controls was performed. Two miners were positioned outside the deck of the shuttle car while the shuttle car was energized, the tram control was in the fast tram position, and the park brake was not set.

**Corrective Action:** The written mine training program was revised to include, “Mobile equipment operators shall not leave the equipment operating deck with the equipment running; and the shuttle car circuit breaker shall be de-energized prior to performing any repair or maintenance; this includes cleaning out the operator deck.” Management and miners were trained in the requirements of the new safety precautions.
ENFORCEMENT ACTIONS

§ 104(d)(1) citation, No. 7259168, was issued to Double Bonus Coal Company citing 30 CFR, section 75.1725(a)

Condition or Practice:

The #2 shuttle car, serial #17407, operating on the MMU-003 working section, was not maintained in a safe operating condition. The tram pedal was sticking while the shuttle car was in operation on the active mining section. The Section Foreman and the Chief Electrician, agents of the mine operator, were made aware by the shuttle car operator that an unsafe condition existed on the shuttle car that was being operated. The agents of the operator failed to take immediate and appropriate action to remove the shuttle car from service until repairs could be made. The shuttle car operator continued operating the shuttle car until the mechanic arrived at the section dumping point to assist the shuttle car operator in making proper repairs. The shuttle car remained energized. The pump motor of the #2 shuttle car was running while the repair work was being performed. The park brake was not set. The tram pedal on which the work was being performed was engaged and became stuck. The shuttle car operator was pinned between the shuttle car and the solid rib, causing fatal injuries. The mechanic was rolled along the solid rib line, causing serious life threatening injuries. The violative condition is contributory to the fatal mining accident which occurred October 30, 2006.
ENFORCEMENT ACTIONS

§ 104(a) citation, No. 7259169, was issued to Double Bonus Coal Company citing 30 CFR, section 75.1725(c).

Condition or Practice:

Repairs were performed on the #2 shuttle car, Serial #17407, located on MMU-003 working section, while the power was on and the machine was not blocked against motion. The shuttle car was energized while repair work was being performed on the tram pedal that was sticking. The park brake was not set. The two persons performing the repair work were located outside the deck of the shuttle car, between the shuttle car and the solid rib. The tram pedal on which the work was being performed was engaged and stuck. When the shuttle car moved, the shuttle car operator was pinned between the shuttle car and the solid rib, causing fatal injuries. The mechanic was rolled along the solid rib line, causing serious life threatening injuries. The violative condition is contributory to the fatal mining accident which occurred October 30, 2006.
BEST PRACTICES

• De-energize, lock out, tag, and block mobile equipment when making repairs.
• Ensure that equipment decks are cleaned of accumulations of coal, mud and other extraneous materials, and mechanical components are greased and lubricated as necessary.
• Assume safe positions prior to conducting work.