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# GENERAL INFORMATION

## Coal Mine Fatal Accident 2006-22



Operator:	Mystic LLC
Mine:	Candice 2
Accident Date:	April 7, 2006
Classification:	Powered Haulage
Location:	Dist. 4, Boone Country, West Virginia
Mine Type:	Underground Coal Mine
Employment:	137
Production:	3,000 Tons/Day

# ACCIDENT DESCRIPTION



At approximately 12:15 p.m., on Friday, April 7, 2006, a 53-year old mobile bridge operator with 32 years of mining experience was fatally injured when he was caught in the pinch point between the mobile bridge conveyor boom, the low-low belt framing and the tail dolly.

# ACCIDENT DESCRIPTION



The accident occurred because the continuous haulage system was restarted without following the proper communication procedure to ensure all mobile bridge operators were ready to move the system. Other factors

contributing to the occurrence of the accident were safety devices installed on the continuous haulage system which did not reliably disable the machines, the continuous haulage system was not disabled prior to the #1 mobile bridge operator exiting the operator's compartment, and the location of the victim in the pinch point area between the mobile bridge conveyor and the low-low belt structure. Work practices and procedures contributed to the accident.

# ROOT CAUSE ANALYSIS

Causal Factor: The established communication procedure to ensure that all mobile bridge conveyor operators were ready to move was not followed. Three of the four bridge operators began moving their machines forward without receiving voice confirmation from the #1 mobile bridge conveyor operator to ensure that it was safe to begin movement of the continuous haulage system.

Corrective Action: The approved training plan required confirmation of all mobile bridge operators prior to movement to ensure that the machines were safe to begin operation. All mobile bridge operators received additional task specific training to ensure that the communication procedure was followed. Supervisory personnel received training to ensure that adequate oversight is provided to ensure that mobile bridge conveyor operators communicate prior to movement of the continuous haulage system.

# ROOT CAUSE ANALYSIS cont'd

Causal Factor: The #1 mobile bridge operator exited the operator compartment without ensuring that the bridge conveyor was disabled. Effective procedures were not in place to assure that safety devices were functioning properly and to ensure that miners would use safety devices as intended. The design of the operator compartment allowed the operator to exit the compartment without disabling his mobile bridge carrier.

Corrective Action: Miners were provided with additional training to ensure adherence to the requirements of the approved training plan. The arm rest safety device was modified to raise its profile and a chain screen was installed from the top of the operator compartment canopy to the arm rest in order to prevent miners from exiting the operator's compartment without raising the arm rest safety device.

# ROOT CAUSE ANALYSIS cont'd

Causal Factor: The #1 mobile bridge conveyor operator entered a pinch point area between the mobile bridge conveyor and the low-low belt structure. A safe work practice was not in place and followed to ensure that the miners would not enter hazardous locations. Neither was supervision adequate to ensure that miners did not enter unsafe areas.

Corrective Action: Although miners had been trained in accordance with the approved training plan, the miners, including supervisors, were provided with additional training to reinforce their understanding of the hazards associated with the operation of a mobile bridge system. Reflective signs were placed on the mobile bridge chain conveyor boom to identify the pinch point area.

# ENFORCEMENT ACTIONS

**§ 314(b) safeguard, No. 7245863**, was issued to Mystic LLC for a violation of 30CFR 75.1403.

Adequate communications procedures between the four mobile bridge operators on the Casey Section (MMU-003) were not being followed. The mobile bridge conveyor system transports material, i.e. coal, as well as the operators during its normal operation. The #1 mobile bridge operator left the operator compartment without informing the other mobile bridge operators. The other mobile bridge operators began to move the mobile bridge conveyors forward without confirmation from each mobile bridge operator that it was safe to move. The #1 mobile bridge conveyor was dragged forward which led to fatal injuries to the #1 mobile bridge operator. In addition, the #1 mobile bridge operator left the operator compartment without disabling his machine. These conditions present the hazards of crushing, pinching or trapping any miner within close proximity to the machines. This is a Notice to Provide Safeguards requiring that the mobile bridge operators on the Casey Section and all other mobile bridge systems at this mine must follow proper communications procedures, that the #4 (lead bridge) mobile bridge operator receive voice confirmation from each operator before the movement of any mobile bridge conveyor and that each mobile bridge operator disable their individual mobile bridges before leaving the operator compartment.



# ENFORCEMENT ACTIONS cont'd

**§ 104(a) citation number 7245864** was issued to Mystic LLC for a violation of 30CFR 75.1725(a).

The #1 Mobile Bridge Carrier, Oldenberg Stamler model SCH-36, in operation on the Casey Section (MMU-003) was not being maintained in safe operating condition. Loose coal present behind the arm bar prevented it from being raised to disable the machine. In addition, when tested, the disabling switch, activated by raising the bar, did not reliably disable the machine due to an internal malfunction in the switch. Failure to disable the machine led to a fatal accident which occurred on April 7, 2006.

# BEST PRACTICES

- Ensure that the lead bridge operator receives voice confirmation from all bridge operators before activating the continuous face haulage system.
- Disable the continuous face haulage system before leaving your operator's compartment.
- Install and maintain "position occupied" switches or devices designed to prevent all system movement when any operator leaves their cab.
- Develop processes, involving all miners, designed to proactively identify and eliminate hazards and unacceptable risks.