*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.*

GENERAL INFORMATION

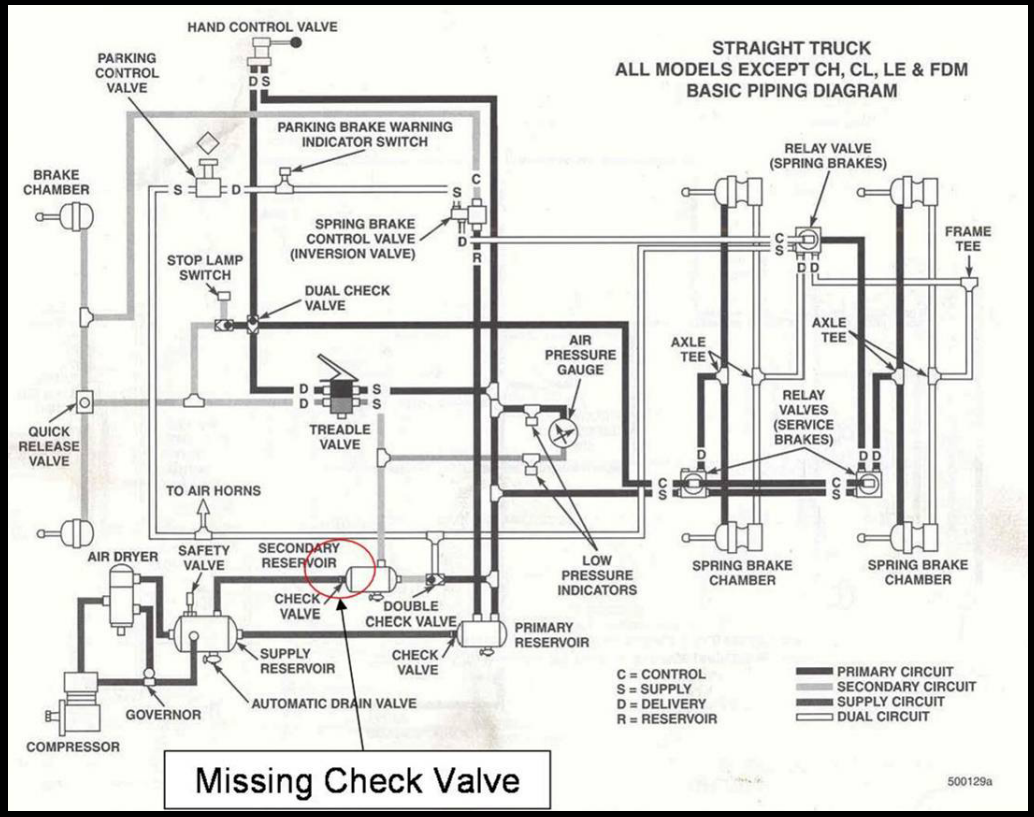
Coal Mine Fatal Accident 2004-11

Operator:	Tug Valley Coal Processing Company
Mine:	Tug Valley Coal Processing Company
Accident Date:	June 10, 2004
Classification:	Powered Haulage
Location:	District 4, Mingo County, WV
Mine Type:	Surface
Employment:	4
Production	Non-producing

ACCIDENT DESCRIPTION

The victim, a 52-year old heavy equipment operator with 26 years of mining experience, was operating a refuse truck while descending a grade from the crest of an impounding structure. He lost control of the truck during the descent, causing the truck to leave the roadway, travel across a ditch, and overturn. The driver was found along the ditch, approximately 60 feet uphill from the truck.

CONCLUSION



A failure occurred in the right front drive axle brake chamber of the truck as it descended the steep grade, causing loss of both primary and secondary brake system air pressure and a total loss of service brake capability. The truck was equipped with spring applied brakes designed to apply in an emergency situation. Two of the four spring applied brakes, however, were defective. These defects resulted in the loss of control of the truck while descending the steep grade. With fully functional and maintained spring brakes, the victim would have been able to achieve a controlled descent.

CONCLUSION

Prior to the accident, the brakes of the truck were not tested to determine if they were sufficient to stop and hold the loaded truck on the grade where it was being used. Procedures were not in place to test the brake system. A physical examination of the brake systems and components of the truck had not been made since the truck was leased for use at this site.

The latching mechanism of the seat belt in the truck was defective due to a broken internal plastic component. The victim was not wearing the seat belt when the accident occurred. He received fatal injuries from contact with the truck after he either jumped or was thrown from the truck. It is probable that the degree of injury would have been lessened by correctly wearing a fully functional seatbelt.

ROOT CAUSE ANALYSIS

Causal Factor: The parking (spring applied) brake system of the 1994 Mack RD888SX truck was defective. The operator could not determine when the components of the brake system had been examined for defects. A program was not in place to perform a physical examination of the brake systems and components of trucks leased for use at the mine.

Corrective Actions: The operator developed a program of examination that required operator-owned and leased trucks to be inspected by persons with maintenance experience. This is to be conducted when the trucks are first brought to the mine prior to being placed into operation and at six months intervals thereafter. The inspection includes a physical examination of the braking system by removing the wheel unit dust covers and the wheel units if necessary to determine the condition of the components. A record of the examination, and any needed repairs, will be completed and maintained at the mine.

ROOT CAUSE ANALYSIS

Causal Factor: The driver of the 1994 Mack RD888SX truck was not instructed to function test the truck braking system to ensure the brakes were capable of stopping and holding the loaded truck on a grade. In addition, a safe procedure for testing the brakes of the loaded truck was not established.

Corrective Actions: The operator designated an area of the road at the top of the impoundment as a brake test area and constructed a ramp at the test area to be used by a truck having difficulty with the brakes while being tested. The grade of the road at the test area is ten percent. Signs have been posted identifying the test area. The workers were instructed to test the brakes of the trucks before hauling loads off the impoundment and were instructed in the procedures required to conduct the test.

ROOT CAUSE ANALYSIS

Causal Factor: The victim was not wearing the seat belt when the accident occurred. The seatbelt had a defect in the latching mechanism due to a broken internal plastic component. The person who conducted the pre-operational inspection did not report the defect and the defect was not corrected before the truck was used. The victim was not aware of the defect before driving the truck. The defective condition of the seatbelt could reasonably have resulted in the victim not wearing the belt, and may have contributed to the cause of the accident .

Corrective Actions: The operator instructed all employees on the importance of wearing seatbelts. The safety program of instruction requires that equipment operators use seatbelts at all times; that seatbelts be examined during pre-operational checks; and that if a seatbelt is discovered to have a defect, the equipment is to be taken out of service. All seatbelts on operator-owned and leased equipment were examined to determine that they were in proper working condition .

ENFORCEMENT ACTIONS

104(a) Citation was issued for a violation of 30 CFR 77.404(a) stating in part that the 1994 Mack RD888SX tandem truck was not maintained in safe operating condition.

104(a) Citation was issued for a violation of 30 CFR 77.1606(c) stating in part that the seatbelt provided for the 1994 Mack RD888SX tandem truck was defective. The defect affected safety and was not corrected before the truck was used.

BEST PRACTICES

- Never operate a truck or moving machine without using a seat belt.
- Never attempt to jump from a moving truck or machine.
- Ensure that seat belts are in good condition and operating properly.
- Conduct pre-operational checks to identify any defects that may affect the safe operation of equipment before it is placed into service. Pay special attention to ensuring the brakes are properly adjusted and there are no significant air leaks.
- Operate loaded trucks in an appropriate gear for the grade, load, and speed.
- Never operate a truck where the brakes will not stop it.
- Never rely on engine brakes and transmission retarders as substitutes for keeping brakes properly maintained.