*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 2005-14 & 15

Operator:	Bell County Coal Corporation
Mine:	Preparation Plant
Accident Date:	August 19, 2005
Classification:	Powered Haulage
Location:	Dist. 7, Bell County, Kentucky
Mine Type:	Preparation Plant
Production:	5,000 tons raw coal processed/day

ACCIDENT DESCRIPTION

On August 19, 2005, operations at the preparation plant proceeded normally from the 7:00 a.m. starting time until approximately noon. The contract refuse truckers had emptied the refuse bin and were waiting for it to refill to resume hauling. Since it was near lunch time, and it would be several minutes before the bin would be refilled, victim A, a truck driver suggested that they go to the pump house for lunch. This was the typical meeting location for the truckers and was less than 50 feet from the bin.

ACCIDENT DESCRIPTION

Victim B, another truck driver, parked his truck along side the bin. A third truck driver parked in a level area to the west of the pump house. A few minutes later, a fourth truck driver parked on the hill above the pump house and walked down and joined the three others. The fourth driver stated he set both the park brake and the hand brake before exiting the truck, leaving it running and with the transmission in neutral. After a period of time, estimated between five and 15 minutes, his truck rolled down the hill and struck the center of the pump house. The roof was knocked up and off the back of the building and the concrete block walls were destroyed. Victims A and B were fatally crushed in the fallen pump house. A fifth truck driver, while sitting in his truck, heard a sound like a service brake being released, and saw the truck roll down the hill and strike the pump house.

DISCUSSION

The Truck

The 1988 Mack haul truck was provided with a Jacobs Engine Brake (Jake Brake) that could not have been applied at the time of the accident because the truck transmission was in neutral. The empty weight of the truck is approximately 39,500 lbs. The truck suffered only cosmetic damage in the accident and was fully operational for testing.

DISCUSSION

Hand-Control Brake System Description: The truck's steering column is equipped with a Bendix TC-2 hand-control valve that is called a "dump brake" or "hand-control brake lever". The control lever is stamped with the label: "Not For Parking."

DISCUSSION

Recreation of the Accident Conditions - A recreation of the events leading up to the accident was conducted. The truck was driven to the location where it was parked immediately before the accident and positioned in accordance with the witness' accounts. The engine was running at low idle and an air reservoir pressure of approximately 115 p.s.i. was maintained during all the tests.

Service brake: The compressed air service brake was applied and held the truck on the grade.

Parking brake: The spring applied parking brake was applied and all other brakes were released. The truck remained stationary on the grade.

Hand-control brake: The hand-control brake lever was moved to the fully applied position and the driver removed his hand from the control. All other brakes were released. The brake lever slowly moved from the fully applied position toward the released position. Throughout this time the truck remained stationary. After 8 minutes, the brake lever rapidly moved the last several inches to the released position and the truck started rolling down the grade. The slow movement, followed by fast movement of the control lever was characteristic of several tests. Only the setting of this brake could produce the events described by the various witnesses. Overall, the time lapse ranged from 7 ½ to 12 ½ minutes. This is consistent with the witness' accounts, allowing the driver ample time to walk to the pump house and join the other drivers.

DISCUSSION

Human Factors: Urine and blood samples were obtained from the driver of the runaway truck shortly after the accident. A toxicology analysis was conducted with the results as follows: Alcohol content of blood - 0.00gram/100 ml. Drug content of blood - No drugs identified; Drug content of urine - presence of Cannabinoid Metabolite(s) indicated.

ROOT CAUSE ANALYSIS

Causal Factor: The parking brake was not set and the wheels of the vehicle were not turned toward the berm or high wall or blocked when the truck was parked and left unattended.

Corrective Action: The Company has required that all current truck drivers be trained specifically in the proper method of parking a truck and that this be made a part of the training for all newly employed truck drivers. The operator should establish a firm procedure to assure that any truck operated on mine property will be secured against motion when parked.

ENFORCEMENT ACTIONS

A 104(a) citation was issued for a violation of 77.1607(n). Testing has shown that the number 6 Mack refuse truck was parked on a grade without the parking brake being set or the wheels turned toward the berm or blocked as required.

BEST PRACTICES

- Set truck parking brakes and block the wheels or turn them into a bank or berm when parking any truck on a grade.
- NEVER use a steering column-mounted "dump brake" for parking.
- Maintain equipment braking systems in good repair and adjustment.
- Stop, Look, Analyze, and Manage (SLAM) work areas to ensure that safe work procedures are being followed.
- Conduct pre-operational checks to identify any defects that may affect the safe operation of equipment before being placed into service.