1938 0004

COAL FATAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
BY W. J. FENE

SUBJECT: Explosion, Harwick Coal 7 Coke Company, Harwick, PA, January 12, 1938.

A gas and coal dust explosion occurred at approximately 11:10 a.m., January 12, 1938, in the Harwick Coal & Coke Company, Harwick, PA., resulting in the death of ten men, including three officials, and injury to two others.

The Harwick mine is opened by shafts into the Thick Freeport coal bed, averaging seven feet in thickness. The mine employs 538 men with an average production of 3,500 tons daily. The room and pillar method of mining is used. The mine is classed as gassy and "makes" about 235,500 cubic feet of methane per twenty-four hours. Closed lights are used and the mine is well rock-dusted. Permissible explosives are used, fired by shot firers.

There were thirty-eight men in the mine at the time of the explosion, this being a so-called idle day. These men, with the exception of seven men in the immediate explosion area, were in various parts of the mine, and some of them did not know of the explosion until informed some time after its occurrence. Seven men were working in the explosion area, including fireboss, all of whom were killed by violence and burns. Three men, including an assistant foreman, a fireboss, and a laborer, were in sections of the mine adjoining the explosion area and were asphyxiated by afterdamp.

The cause of the explosion was not determined, insofar as the igniting agent is concerned; and while no definite cause of a gas accumulation can be determined, it is suspected that the ventilating current was short-circuited by a door having been left open. It is believed that the explosion was of electrical origin, although the fact cannot be definitely established. There were three electric locomotives in the section, and it was at first thought that one of these might be responsible for the explosion; however, during further investigation, all three locomotives were found with their trolley poles fastened down, providing that they were not in operation at the time of the explosion. It is possible that the gas may have been ignited by smoking, a flame safety lamp, or explosives, but no evidence was found to substantiate any of these as being a factor.

The force of the explosion was confined to one section of the mine, including about 4,000 feet of main entry and left and right

butt entries. The explosion was extremely violent in some parts of the section, and considerable property damage was done. Seventeen doors and 120 concrete block stoppings were blown out, a number of steel cars were demolished, and considerable track was displaced. The explosion was no doubt stopped by the rock dust present and by expansion when it reached the 12th west entries.

J. J. Forbes, G. W. Grove, W. J. Fene, and M. J. Ankeny of the Bureau assisted in the rescue and recovery work. The bodies were all recovered by 11:00 o'clock the next morning. Oxygen breathing apparatus crews were used in exploratory work and in recovering some of the bodies.

The coroner's inquest developed the fact that no regular fireboss examination was made of the mine on the day of the explosion; and that the firebosses (who are employed as laborers on "idle" days) in the mine that day did not carry flame safety lamps. It seems apparent that proper inspection was not made of the affected section the morning of the explosion; if the fire boss who was found in the explosion area had carried a flame safety lamp he might have detected the presence of gas.

A note by D. Harrington stated: The Harwick Mine is supposed to be one of the most efficiently rock-dusted mines in Pennsylvania. This explosion indicates that ventilation precautionary measures cannot be relaxed with safety even when or if rock-dusting is supposed to be in effect to a fairly efficient extent or degree.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON

C.M. 1451

CONFIDENTIAL MEMORANDUM
(Not for Publication)

April 30, 1938

TO MEMBERS OF THE SAFETY DIVISION:

SUBJECT: Explosion, Harwick Coal & Coke Company, Harwick, Pa., January 12, 1938

A gas and coal dust explosion occurred at approximately 11:10 a.m., January 12, 1938, in the Harwick mine of the Harwick Coal & Coke Company, Harwick, Pa., resulting in the death of 10 men, including three officials, and injury to two others.

The Harwick mine is opened by shafts into the Thick Freeport coal bed, averaging 7 feet in thickness. The mine employs 538 men with an average production of 3,500 tons daily. The room and pillar method of mining is used. The mine is classed as gassy and "makes" about 235,500 cubic feet of methane per 24 hours. Closed lights are used and the mine is well rock-dusted. Permissible explosives are used, fired by shot firers.

There were 38 men in the mine at the time of the explosion, this being a so-called idle day. These men, with the exception of 7 men in the immediate explosion area, were in various parts of the mine, and some of them did not know of the explosion until informed some time after its occurrence. Seven men were working in the explosion area, including a fireboss, all of whom were killed by violence and burns. Three men, including an assistant foreman, a fireboss, and a laborer, were in sections of the mine adjoining the explosion area and were asphyxiated by afterdamp.

The cause of the explosion was not determined, insofar as the igniting agent is concerned; and while no definite cause of a gas accumulation can be determined, it is suspected that the ventilating current was short-circuited by a door having been left open. It is believed that the explosion was of electrical origin, although the fact cannot be definitely established. There were three electric locomotives in the section, and it was at first thought that one of these might be responsible for the explosion; however, during further investigation, all three locomotives were found with their trolley poles fastened down, proving that they were not in operation at the time of the explosion. It is possible that the gas may have been ignited by smoking, a flame safety lamp, or explosives, but

no evidence was found to substantiate any of these as being a factor.

The force of the explosion was confined to one section of the mine, including about 4,000 feet of main entry and left and right butt entries. The explosion was extremely violent in some parts of the section, and considerable property damage was done. Seventeen doors and 120 concrete block stoppings were blown out, a number of steel cars were demolished, and considerable track was displaced. The explosion was no doubt stopped by the rock dust present and by expansion when it reached the 12th west entries.

J. J. Forbes, G. W. Grove, W. J. Fene, and M. J. Ankeny of the Bureau assisted in the rescue and recovery work. The bodies were all recovered by 11:00 o'clock the next morning. Oxygen breathing apparatus crews were used in exploratory work and in recovering some of the bodies.

The coroner's inquest developed the fact that no regular fireboss examination was made of the mine on the day of the explosion; and that the firebosses (who are employed as laborers on "idle" days) in the mine that day did not carry flame safety lamps. It seems apparent that proper inspection was not made of the affected section the morning of the explosion; if the fire boss who was found in the explosion area had carried a flame safety lamp he might have detected the presence of gas.

This information is confidential and should not be published.

W. J. FENE

Approved:

D. HARRINGTON

Note by D. Harrington:

The Harwick Mine is supposed to be one of the most efficiently rock-dusted mines in Pennsylvania. This explosion indicates that ventilation precautionary measures cannot be relaxed with safety even when or if rock-dusting is supposed to be in effect to a fairly efficient extent or degree.