

COAL FATAL

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
BY D. HARRINGTON

SUBJECT: Mr. McCaa's Preliminary Report on Explosion #7 Colliery,
Nanticoke, PA., October 30, 1926.

This was an explosion in an anthracite mine producing 3,100 tons daily with approximately 2,100 men employed, 1,700 being underground. The mine has a number of shafts and the method of attack in the driving of gangways and airways on about 1% grade in favor of the loads and the driving of rooms up-pitch which is variable. Electric locomotives are used for hauling in the gangways; very few mules are found. Several seams are worked. Permissible electric cap lamps and magnetically locked flame safety lamps are in general use, though about half dozen men around the bottom of one of the shafts use carbide lamps. The mine is equipped with about 8 fans, some electrically driven, others steam driven, one fan having air delivery of 300,000 cu. ft. per minute, against 4 1/2 inch. water gauge. The total quantity of air in the mine is approximately 650,000 cu. ft. per minute.

The explosion occurred at 7:05 a.m., October 26, 1926. Foreman Miner Henson received the information at 8:20 a.m. and was at the mine office at 8:40 a.m. The explosion occurred on the inside of a rock tunnel which had been driven to interest what is known as the George Vein. The tunnel was 12 ft. wide and had a brattice its entire length for ventilation purposes. The return side, which was also the trolley locomotive haulage side, was about 10 ft. wide and the intake side was only 2 ft. wide. There was an electrically driven booster fan situated on the intake side near interior end of the tunnel. The workings in George Vein off the interior end of the tunnel extend only a few hundred feet. The fire boss's examination on the morning of the explosion indicated that there was methane in the workings of the George vein and the custom is said to have been that the twelve men working in the George Vein territory should not enter that region until the fan attendant had started the booster fan and cleared the region of methane. On this particular morning the men started the fan before the fan attendant came in. Apparently some of them were inside the tunnel. Shortly after starting the fan they began to smoke cigarettes and ignited the methane, with resultant death of eleven. The affair indicates that while in general the company took a number of precautions, there were in use a considerable number of dangerous mining practices, among them use of one entry system to ventilate decidedly gassy workings, and use of trolley locomotives on haulage or return air. Methane accumulations were known to exist and to be removed through the return. The practice of having the men in the immediate region while moving methane

accumulations

accumulations was also decidedly dangerous. The use of the booster fan with open electric equipment close to gassy workings is dangerous. The fact that the miners smoked in a mine known to be gassy as to require closed lights certainly shows poorly as to mine discipline, and in addition it is brought out that men had been discharged only a few days previous to the explosion for smoking in this very section. Rather oddly, Mr. McCaa's report indicates that flame safety lamps were at least for a time suspected as having originated the explosion and this even though Mr. McCaa states that the men in the mine are accustomed to the flame safety lamps and know how to use them.

I concur in Mr. McCaa's recommendations except that there should have been a recommendation that if a section of the mine is "danger boarded" because of methane accumulation, not only should all men be withheld from the particular region affected but also from the entire return side of that region, and moreover there should be extracted from the return side all electric current until the accumulation has been moved. I concur in Mr. McCaa's recommendation that there should not be sent to the operator any communication until the final report is available.

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SUBJECT: Mr. McCaa's Preliminary Report on Explosion. #7 Colliery
Nanticoke, PA., October 30, 1926.

This was an explosion in an anthracite mine producing 3100 tons daily with approximately 2100 men employed, 1700 being underground. The mine has a number of shafts and the method of attack is the driving of gangways and airways on about 1% grade in the favor of the loads and the driving of rooms up-pitch which is variable. Electric locomotives are used for hauling in the gangways; very few mules are found. Several seams are worked. Permissible electric cap lamps and magnetically locked flame safety lamps are in general use, though about half dozen men around the bottom of one of the shafts use carbide lamps. The mine is equipped with about eight fans, some electrically driven, others steam driven, one fan having air delivery of 300,000 cu. ft. per minute, against 4 and an half in. water gauge. The total quantity of air in the mine is approximately 650,000 cu. ft. per minute.

The explosion occurred at 7:05 a.m. , October 30, 1926. Foreman Miner Henson received the information at 8:20 a.m. and was at the mine office at 8:40 a.m. The explosion occurred on the inside of a rock tunnel which had been driven to intersect what is known as the George Vein. The tunnel was 12 ft. wide and had a brattice its entire length for ventilation purposes. The return side, which was also the trolley locomotive haulage side, was about 10 ft. wide and the intake side was only 2 ft. wide. There was an electrically driven booster fan situated on the intake side near the interior end of the tunnel. The workings in George Vein off the interior end of the tunnel extend only a few hundred feet. The fire boss 's examination on the mornings of the explosion indicated that there was methane in the workings of the George Vein and the custom is said to have been that the twelve men working in the George Vein territory should not enter that region until the fan attendant had started the booster fan and cleared the region of methane. On this particular morning the men started the fan before the fan attendant came in. Apparently some of them were inside the tunnel. Shortly after starting the fan they began to smoke cigarettes and ignited the methane, with resultant death of eleven. The affair indicates that while in general the company took a number of precautions, there were in use of in entry system to ventilate decidedly gassy workings, and use of trolley locomotives on haulage or return air. Methane accumulations were known to exist and to be removed through the return. The practice of having the men in the immediate region while moving methane accumulations

was also decidedly dangerous. The use of booster fans with open electric equipment close to gassy workings is dangerous. The fact that the miners smoked in a mine known to be so gassy as to require closed lights certainly shows poorly as to mine discipline, and in addition it is brought out that men had been discharged only a few days previous to the explosion for smoking in this very section. Rather oddly, Mr. McCaa's report indicates that flame safety lamps were at least for time suspected as having originated the explosion and this even though Mr. McCaa states that the men in the mine are accustomed to the fire safety lamps and known how to use them.

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DEPARTMENT OF COMMERCE
BUREAU OF MINES
BY D. HARRINGTON

SUBJECT: Explosion, No. 7 Colliery, Susquehanna Collieries Company, Nanticoke, PA., October 30, 1926.

An explosion occurred at about 7:05 a.m., October 30, 1926, at the No. 7 Colliery of the Susquehanna Collieries Company, at Nanticoke, Pa., in which nine men were killed. The explosion occurred in a rock tunnel which had been driven to intersect the "George Vein." The tunnel was 12 ft. wide and had a line brattice its entire length; the return side, which was also the trolley locomotive haulage side, was about 10 ft. wide and the intake was only 2 ft. wide. There was an electrically driven booster fan on the intake side near the interior end of the tunnel. Methane was found in workings near the tunnel by the fire boss on the morning of the explosion. The booster fan was started to clear the section of methane before the men entered, and the gas was moved to where the men were waiting and was ignited by a cigarette being smoked by one of the men.

Foreman Miner, Henson, received information of the explosion at 8:20 a.m. and was at the mine office at 8:40 a.m., where he found that assistance was not needed as the bodies were being recovered.

The preliminary report indicates that while in general the company provided some up-to-date safe equipment and enforced a number of precautions, there were in use a number of dangerous mining practices, among them: - the use of one entry system to ventilate gassy workings; the use of trolley locomotives on return airways; having the men in the immediate region while moving methane accumulations; and the use of booster fans with open electric equipment, close to gassy workings. The fact that miners smoked in a mine, known to be gaseous and where closed lights are used, shows a deplorable lack of proper discipline.

major disaster

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
WASHINGTON

January 29, 1927.

CONFIDENTIAL MEMORANDUM
NOT FOR PUBLICATION

To the members of the Safety Service and Mining Research Divisions:

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While this memorandum is of a confidential nature for the information of Bureau field men, it may be used in connection with Bureau work but should not be published.

D. Harrington

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