

COAL FATAL

1938 0003

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
BY C. W. OWINGS

SUBJECT: Gas explosion, St. Clair Colliery, St. Clair Coal Co.,
St. Clair, PA., April 27, 1938.

An explosion of gas occurred in the No. 1 slope of the St. Clair Coal Company, St. Clair, PA., about 7:30 a.m., April 27, 1938. Seven men were killed by force and flame and eleven men were injured to the extent that they were taken to the hospital for treatment and observation. One of these men died the following morning.

The explosion was caused by the ignition of methane which was released when a section of the pillar supporting the gangway caved in. The explosion was local in extent. Rescue and recovery of the bodies was accomplished without use of protective equipment. recovery was directed by Timothy Ryan, State mine inspector.

The colliery is an anthracite mine in which approximately 600 men are employed on three shifts. Eighteen men, including the motorman and his helper, were employed in the section affected by the explosion. Production is about 550,000 tons of anthracite annually.

The mine is opened by slopes from the surface to the bottom of the basin of the East Buck Mountain vein. The average slope of the bed is about 45 degrees south, ranging up to 75 degrees, however, and the slope, 1,500 feet long, pitches about 15 degrees south. Mining is done from systems of gangways and tunnels driven off the slope at distances from 250 to 350 feet. Monkey headings serving as return airways are driven parallel to gangways. Chutes are driven 50 feet on centers to the monkey heading, from which double manway breasts twenty-four feet wide are driven. These breasts are worked "full".

The St. Clair Colliery is a mixed-light mine. The area affected by the explosion was considered to be nongassy by the State Department of Mines. No gas had been reported in the section for several years. Most of the men in the affected area wore Edison Model K lamps because they preferred them to carbide lights; they refused to give them up when requested by the company. Carbide lights were being used by the locomotive operator and his helper and by the loader boss or chute starter; a miner and laborer on the gangway were also using carbide lamps. Permissible flame safety lamps were used by the fire boss and the miners.

Upon leaving the section after gathering loaded cars, the

motorman's helper pulled the trolley cut-out switch, taking electric power off the section (inby No. 9 tunnel). There was a positive current of air in the section and considerable air movement was noted after the explosion, although ventilation was disrupted. Electrical blasting was used in robbing operations and fuse was used for blasting to start chutes and in driving breasts. No blasting was done on the day of the explosion.

Little damage and only minor violence was done by the explosion. On April 27 the fire boss had made a preshift examination of the workings in the explosion area. A locomotive had placed a trip of empty cars and gone back to the slope bottom. Very few men had entered the working places, as they were selecting and preparing timber and lagging to take to the faces with them. The miner from No. 65 breast was working with a timber on the gangway when the floor started to cave; he was barely able to get in the clear and he called the fire boss who was at breast No. 67. The fire boss sent a miner to bring men out of inby places. The fire boss and the miners, most of whom had flame safety lamps, failed to observe any explosive gas being liberated from the hole. The first man with an open light to reach the vicinity of the cave ignited gas when within thirty feet of the hole. An explosion occurred immediately which killed him and burned several others. Within a few minutes a second explosion occurred, probably caused by ignition of gas from burning timber or clothing. The motorman and his helper were returning to investigate when the second explosion occurred, and they were blown down but were uninjured. They reported the explosion to the superintendent at 7:40 a.m. Mine-rescue crews were called from the Philadelphia & Reading Coal & Iron Company and the Pine Hill Coal Company. They found upon their arrival that rescue work was progressing satisfactory and that air in the vicinity of the explosion was clear of afterdamp and methane. Consequently no breathing apparatus or gas masks were used.

This company has had a good accident record and has received two Joseph A. Holmes awards for outstanding accident record. This explosion is an example of the hazard of having part of a mine on closed lights and another section on open lights. If all the men had been wearing electric cap lamps, it is unlikely that the explosion would have occurred.

Mr. Glavin

*OK'd
C.M.F.*

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON

C.M. 1456

CONFIDENTIAL MEMORANDUM
(Not for Publication)

PA. file
June 10, 1938

TO MEMBERS OF THE SAFETY DIVISION:

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St. Clair Coal Co., St. Clair, Pa.,
April 27, 1938.

*8 killed
10 injured*
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The explosion was caused by the ignition of methane which was released when a section of the pillar supporting the gangway caved in. The explosion was local in extent. Rescue and recovery of the bodies was accomplished without use of protective equipment. Recovery was directed by Timothy Ryan, State mine inspector.

The colliery is an anthracite mine in which approximately 600 men are employed on three shifts. Eighteen men, including the motorman and his helper, were employed in the section affected by the explosion. Production is about 550,000 tons of anthracite annually.

The mine is opened by slopes from the surface to the bottom of the basin of the East Buck Mountain vein. The average slope of the bed is about 45° south, ranging up to 75°, however, and the slope, 1,500 feet long, pitches about 15° south. Mining is done from a system of gangways and tunnels driven off the slope at distances from 250 to 350 feet. Monkey headings serving as return airways are driven parallel to gangways. Chutes are driven 50 feet on centers to the monkey heading, from which double manway breasts 24 feet wide are driven. These breasts are worked "full".

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This memorandum, based on a report by R. D. Currie and L. L. Naus, is confidential and must not be published.

C. W. OWINGS

Approved:

D. HARRINGTON