

COAL FATAL

UNITED STATES
DEPARTMENT OF COMMERCE
BY C. W. OWINGS

SUBJECT: Explosion, Irvona No. 3 mine, August 15, 1928.

A gas and dust explosion occurred in the Irvona No. 3 mine of the Irvona Coal and Coke Co., Coalport, PA., about 3:15 p.m., August 15, 1928. There were 102 men working on the shift, but some left the mine ^{and} only 14 were in the affected section when the explosion occurred. Eight men were killed by violence, five were overcome by afterdamp and one man, who was overcome, was rescued and resuscitated. The explosion was probably caused by the ignition of gas by an open type mining machine, another of the long list of electrical ignitions in closed light mines.

The mine was not rock-dusted and the only watering was sprinkling on about a third of the trips of loaded cars. There are three drift openings, all intake airways, and one shaft, which is upcast. Development is in the Lower Kittanning bed which averages 4 feet 3 inches thick and dips about 3 percent. Coal is cut with nonpermissible electric cap lamps and officials carry magnetically-locked flame safety lamps, except for one key-locked lamp. All underground electrical machinery is open type. The mine is naturally wet but there was considerable dust in the explosion zone; however a part of the mine outbye was quite wet.

Dangerous quantities of gas were liberated in the mine, but the section of the mine in which the explosion occurred was regularly inspected. The return air from room 7, B-3 had to pass through an opening of about 5 square feet and therefore the rooms on B-3 were poorly ventilated; falls further restricted the air flow in the air courses and the door controlling the ventilation to the affected area was frequently open during haulage operations. Room 7 was working to the rise and was about 100 feet in from the entry. It was testified that a gas feeder had been heard in this room for 3 to 4 days before the explosion but gas was not reported. As the room was ahead of air, it had been stopped and the straight track to the face been "broken;" the cross-cut from the adjoining room had been completed. The machine man and his helper, who knew of these conditions went into room 7 and started to unload the cutting machine from the truck preparatory to cutting the coal. While unloading the machine an arc occurred and ignited the gas which had accumulated.

The coroner's jury reported as follows: "From evidence offered us we find that the accident was due to an accumulation of gas caused by insufficient ventilation and ignited by an open type mining machine. We further find that those in charge of furnishing materials and labor and looking after the safety of employees of the Irvona Coal and Coke Co. mine were grossly careless and

negligent in not complying with the recommendations of the State mine inspectors and the requirements of the mining laws of Pennsylvania."

The miner who was found unconscious was carried to fresh air and given artificial respiration by the mine superintendent, a miner and an electrician. He was resuscitated.

This disaster was caused by failure of the fire boss to perform his duties faithfully; by the failure of the machine man to obey instructions and heed warnings; and by the management who neglected to provide safe electrical equipment for the employees. As has been remarked so frequently in these memoranda, open type equipment in closed-light mines is dangerous and causes most of the explosions in this type of mine. In fact, explosions, started by electricity in closed light mines now occur with far too much frequency and regularity.

into the face of the five right entry to ascertain if the place were ready to be cut; the flame from the lamp igniting the gas.

This explosion was directly the result of extreme carelessness on the part of the management and of the State Inspectors in allowing men to wear open lights and to use open type electrical equipment in a mine liberating gas and which had been classified as gassy by the State Department of Mines. The gas ignition four months previously should have served as a warning of the danger of using open lights and equipment but this warning was not heeded. There have been numerous gas ignitions in so-called nongassy or slightly gassy mines in recent months and there is decidedly good warrant to regard any or all mines as gassy if any gas is found at any time. It is criminal folly to wait until men are killed by gas ignitions before starting to take precautions and it is utter nonsense to expect machine runners to protect themselves or their coworkers by making or supposedly being required to make gas examinations before entering places to cut coal.

The facts in this memorandum are based upon the report by Jesse Redyard. This information is confidential and should not be published, but may be used by Bureau men in Bureau work.

W. M. Adams

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
WASHINGTON

CONFIDENTIAL MEMORANDUM
NOT FOR PUBLICATION

To the members of the Safety Division:

SUBJECT: Irvona No. 3 mine explosion.

A gas and dust explosion occurred in the Irvona No. 3 mine of the Irvona Coal and Coke Co., Coalport, Pa., about 3:15 p.m. August 15, 1928. There were 102 men working on the shift, but some had left the mine and only 14 were in the affected section when the explosion occurred. Eight were killed by violence, 5 were overcome by afterdamp and one man, who was overcome, was rescued and resuscitated. The explosion was probably caused by the ignition of gas by an open type mining machine, another of the long list of electrical ignitions in closed light mines.

The mine was not rock-dusted and the only watering was sprinkling on about a third of the trips of loaded cars. There are three drift openings, all intake airways, and one shaft, which is upcast. Development is in the Lower Kittanning bed which averages 4 feet 3 inches thick and dips about 3 per cent. Coal is cut with nonpermissible mining machines and blasted with permissible explosives. The fan, run exhausting, delivers 38,000 cu. ft. of air a minute. There are two major splits of the air. The mine is rated as gassy and one fire boss is employed. Main haulage is on intake air but some of the haulage is on the return. Nine trolley and one cable-reel locomotives haul the coal. Miners wear permissible electric cap lamps and officials carry magnetically-locked flame safety lamps, except for one key-locked lamp. All underground electrical machinery is open type. The mine is naturally wet but there was considerable dust in the explosion zone; however a part of the mine outby was quite wet.

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5259-B

room 7 and started to unload the cutting machine from the truck preparatory to cutting the coal. While unloading the machine the explosion occurred. It seems probable that while unloading the machine an arc occurred and ignited gas which had accumulated.

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This information, abstracted from the report by S. P. Howell, is confidential and must not be published.

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Approved: December 19, 1928.

D. Harrington

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