

# COAL FATAL

1937 0005

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

SUBJECT: Explosion in the Evan Jones Coal Company mine,  
Jonesville, Alaska, October 26, 1937.

On October 26, 1937, at 2:10 p.m., an explosion of gas and dust in the Jonesville mine of the Evan Jones Coal Company, Jonesville, Alaska, operating on Federal Government leased land, was initiated when a cigarette was lighted with a match. Of the nineteen men in the mine at the time of the explosion fourteen were killed, one was severely injured, and four escaped without injury. Little damage was done to the mine.

The Jonesville mine is adjacent to the old Government mine at Eska and is about 20 miles from Palmer and 58 miles by rail from Anchorage. On October 26, 42 men were employed on two shifts and about 300 tons a day were produced at that time. After the explosion the mine was shut down. Failure to renew the contract with the Alaska Railroad at a suitable price made operation of the mine unprofitable if safety regulations were observed, according to the president, Mr. Anderson. It is understood, however, that the mine is to be opened again.

An inclined opening to the surface has been driven off the haulageway about 60 feet from the portal. At the top of this air raise is a 2- by 6-foot straight-blade fan. The housing is steel with a wood and sheet-iron enclosure over the mouth of the raise and the drive.

The mine is opened by a single drift in the No. 8 coal bed on the north limb of the syncline. The main haulageway is near the bottom of the fold which pitches about 33 degrees for about 1,200 to 1,400 feet to the outcrop near the top of a ridge. The volatile ratio of the coal is .464, which is an indication of the relatively high explosibility of this coal. Approximately 70 percent inert material is needed to render the dust nonexplosive in the absence of gas and from 70 to 75 percent incombustible matter when a relatively small percentage of gas is present.

Along the coal bed rooms are turned up the pitch at intervals of 50 to 60 feet except where there are faulted areas. A counter or return airway is carried parallel to the gangway about 40 feet up the pitch. All rooms have a chute partitioned off with planks and lined on the floor with sheet iron. Holes are drilled with compressed air using jackhammers; no water is used but, as much of the coal is damp, probably only a small part of the dust comes from

this source. A permissible explosive, Coalite, is used; it is fired by No. 6 duPont electric detonators, 0 to 4 delay, from magneto-type 10-shot blasting units. Shooting cables are 60 to 70 feet long with insulation frayed and broken. More than a permissible amount of explosive is usually placed in a hole, and the explosive is confined with a fine shale of mixed rash and coal; all "dummies" examined after the explosion contained nothing but fine coal. The side cut or center notch is supposed to be made by picking, but from all appearances the coal was shot from the solid twice a day at 11:15 a.m. and 3:15 p.m. Coal is hauled by General Electric storage-battery locomotives. Cars are of the Sanford-Day drop-bottom type which were apparently tight and little coal was observed spilled along the track.

Natural ventailtion is used the greater part of the time, with fresh air entering through the gangway and filtering up through the rooms to the surface by the airway above room 37. When pressures and temperatures stop or reverse this flow of air a door at the portal can be closed and the fan run blowing, moving about 14,000 cubic feet of air per minute. A compressed air blower was used in the gangway just outby room 42; however, as usual with these auxiliary fans, it was doing little more than recirculating the air. The mine was considered nongassy, although Edison model E electric cap lamps were being used. Smoking and open lights were prohibited underground, there being a large notice to that effect over the portal; however, no search was made for matches or smoking material and matches were found in the pockets of several men known to have smoked habitually. Samples of air indicated that at the faces of the rooms from .13 to 12.8 percent methane was in the mine. The return from the mine was .05 percent. No rock dust had been applied. Although the mine was generally wet, coal sliding down the chute made an appreciable amount of fine dust.

The explosion occurred about 2:10 p.m. on October 26, 1937. The men in the working section thought the explosion was a roof fall or blasting but soon realized that something was wrong when fumes and smoke were noticed. Two men attempted to find a third man who had been sent to the region in which the explosion occurred, but smoke drove them out. One man was overcome and the second man barely reached the surface before he collapsed; he revived and went back in to this man but he was too heavy to be moved. Three men came down from room 36 meeting light smoke and fumes near the bottom, but it was rapidly dissipated by fresh air coming from the gangway. Reaching the bottom they found the foreman attempting to extricate himself from the timbers and other debris; he was blinded by the fumes and had a broken leg. The men removed him to fresh air, one man staying with the foreman while the other one went for help. The whistle was sounded and the men on the night shift rushed into the mine to help with the recovery work. News of the disaster was phoned to Anchorage and a call was put in for George Miller, a former Bureau safety instructor, living in Anchorage. A special train took doctors, nurses, hospital

supplies, and rescue equipment from Bureau of Mines Car 11 to Jonesville. This train arrived at 6:30 p.m. Miller and two other men entered the mine about 6:00 p.m. wearing gas masks and carrying flame safety lamps and carbon monoxide detectors. No fumes or noxious gases were found. Stewart, Territorial Mine Inspector, and Humphrey at Juneau prepared to leave early on the morning of October 27 by steamship, sailing at 5:00 a.m. From Seward, where they arrived at 3:30 p.m., on the 29th, they went from Anchorage on a special gasoline car, arriving at 9:30 p.m. Equipment from Car 11 was then taken to the mine on a special speeder by the manager of the railroad, arriving the next morning at 10:00 a.m.

It is assumed that at the time of the explosion methane had accumulated in the gangway from room 44 to 42 and that these rooms were filled or partially filled with an explosive mixture, and dust was in the air at room 43 where coal was being shoveled down the chute and where the trip had just been loaded at 36 chute. Considerable dust had been made and was carried in by. It was concluded that Robert Nakki went to his coat to get a cigarette and match and started back toward the face; somewhere along the way he lighted the match and "ducked" as the flame flared, escaping with a burned nose. An explosion followed and Nakki started out but was overcome by carbon monoxide and died. Matches found in the pocket of Robert Nakki's clothes indicate that he had been in the habit of smoking.

This memorandum, based upon a report by H. B. Humphrey, shows a number of unsafe practices that should not have been tolerated, and that the mine did not reopen immediately after the explosion because it would have cost too much to carry out the safety regulations indicates that little attention had been paid to safety in this mine prior to the explosion.

A note from D. Harrington stated: This is one of two major disasters in coal mines on Federal Government leased lands within a 6-month period, another having occurred in Wyoming in February 1938 with five fatalities.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON

C.M. 1464

*J. H. Geyer*  
*v. Alaska fol.*

CONFIDENTIAL MEMORANDUM  
(Not for Publication)

June 30, 1938

*OK on C.M.F.*  
TO MEMBERS OF THE SAFETY DIVISION:

SUBJECT: Explosion in the Evan Jones Coal  
Company mine, Jonesville, Alaska.

*14 Killed*  
*(12 B)*  
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This memorandum is confidential and must not be published.

C. W. OWINGS

Approved:

D. HARRINGTON

Note by D. Harrington:

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