July 10, 1941; Acmar No. 6 Mine, Acmar, Ala.; 11 Killed

(From Bureau of Mines report, by E. A. Anundsen and C. E. Saxon)

Ignition of methane near the face of the 8th right entry about 5:00 p.m. resulted in a local gas and dust explosion that killed the 11 men working in the entry. Men in other sections of the mine were not affected. A concussion was felt on the slope, and dust and papers were raised in the air; shortly afterward smoke appeared, and the chainer called the surface, Power was cut off the mine, and the night foreman went down after calling for assistance. Three mine officials and 12 rescue men with oxygen breathing apparatus were in the mine by 6:00 p.m. Two crews with apparatus restored ventilation and recovered nine bodies by about 10:00 p, m. Two bodies were found under falls on July 11 and 12.

The night shift had gone in at 4: 00 o'clock, and men in the 8th right heading were loading and raising cars from the 8th right aircourse through a slant. A hoist and cable were used to bring these cars up to the entry. An arc from the open switch controlling the hoist motor ignited gas. Methane accumulated because of interruptions to ventilation, such as opened doors and curtains, power failures that shut down the mine fan, and leakage through stoppings. Examinations for gas during the day shift did not show an accumulation.

The force of the explosion was confined to a distance of 600 feet from the face of the entry and 3 rooms within that area. Stoppings were blown out throughout the explosion zone. Coal dust was burned, but the pressure dropped where the rooms afforded a large expansion area and propagation stopped. Sprinkling was done but no rock dust was used in the summer months.

Figure 119 (p. 180) gives the details and conditions as observed by the investigators.

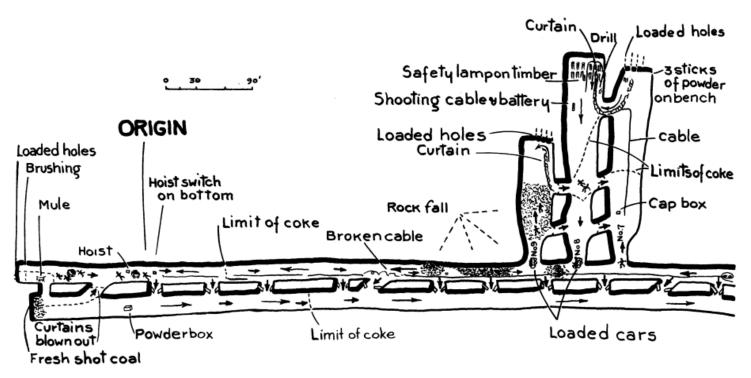


FIGURE 119.—Sketch of explosion area, Acmar No. 6 mine, Acmar, Ala., July 10, 1941.