

NIOSH Releases New Educational Video Escape From Farmington No. 9: An Oral History

Objective

Researchers with the National Institute for Occupational Safety and Health (NIOSH) have developed a training module to educate both new, inexperienced miners as well as veterans on important issues related to self-rescue and escape procedures. These include: (1) physical and environmental conditions that can be encountered in a mine after a major explosion, (2) knowledge of emergency meeting locations and escape routes, (3) the importance of using self-rescuers, even in seemingly clear air, to keep the lungs isolated from contaminants, and (4) why miners should not go off to look for others who are missing. In addition, the module may stimulate miners to think about and discuss mine explosions and the devastating effects of such an event.

Background

On November 20, 1968, a massive explosion rocked the underground workings of Mountaineer Coal Co.'s Farmington No. 9 Mine in West Virginia (Figure 1). Of the 99 miners who were working in the mine at the time of the explosion, only 21 survived and escaped the mine. This group included eight miners who were rescued from the Mahan's Run air shaft. Nearly 40 years after the event, researchers from the NIOSH Pittsburgh Research Laboratory conducted oral history interviews with two of the eight survivors rescued from the shaft.

During their interviews, Waitman "Bud" Hillberry and Gary Martin discuss the Farmington Mine disaster, including the workplace climate leading up to the explosion, and give detailed accounts of their escape from the mine's 7 South section and rescue from the Mahan's Run air shaft after the explosion. During their discussions, Hillberry and Martin describe:

- (1) Events and conditions leading up to the explosion, such as ventilation stoppings lagging far behind the faces of 7 South section
- (2) The explosion event and their initial response to it

- (3) The devastation caused by the initial explosion
- (4) The possible problems that could occur by going back to look for missing miners
- (5) Problems that can occur when miners remove their self-rescuers, even in seemingly clear air
- (6) Knowing how to properly use self-rescue equipment
- (7) Starting the fans prematurely
- (8) Decisions and actions that played a role in the explosion and subsequent rescue efforts

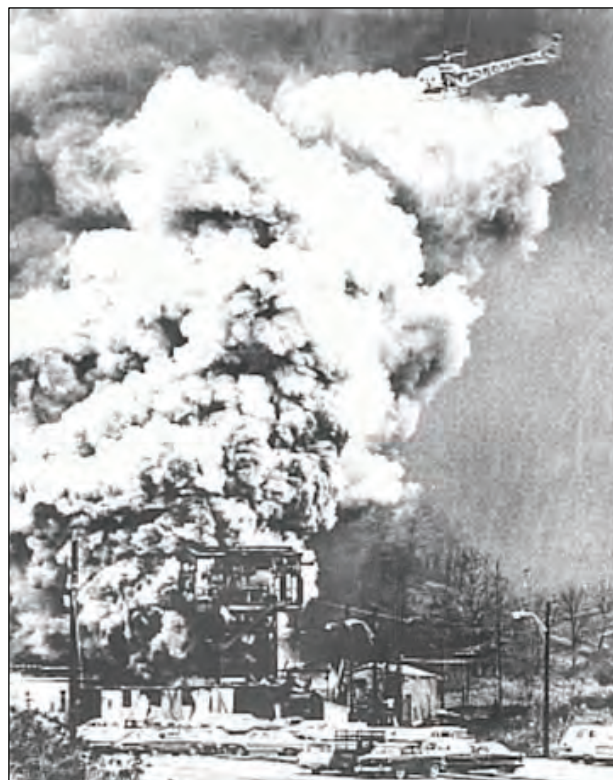


Figure 1.—Smoke pouring from the Llewellyn Shaft after the explosion at Farmington Mine.



Figure 2.—Gary Martin, one of eight survivors of the Farmington Mine disaster, was interviewed by NIOSH researchers.

Until 2006, training to prepare miners to escape an underground mine explosion was largely informal and not detailed. At most, trainers reviewed emergency escape procedures and discussed emergency response. In addition, miners may have walked the escapeways from their respective work stations.

In 2006, several fatal incidents occurred at U.S. underground coal mines. These included an explosion at the Wolf Run Mining Co.'s Sago Mine in West Virginia, in which 12 miners perished; a mine fire at the Aracoma Coal Co.'s Alma No. 1 Mine in West Virginia, in which 2 miners died; and an explosion at the Kentucky Darby Coal Co.'s Darby No. 1 Mine, in which 5 miners died. These incidents raised a number of issues related to mine escape and self-rescue following catastrophic events. As a result, new regulations were promulgated requiring mines to provide quarterly mine escape and evacuation training to their workforces.

Approach

NIOSH researchers first learned of Hillberry and Martin in 2002. Both men were contacted and agreed to individual videotaped interviews. Hillberry worked as a brattice man at the mine and was in the 7 South section building ventilation stoppings. Segments of his interview provided important information that set the stage for the interview with Martin (Figure 2). On the night of the explosion, although a mechanic, Martin was running a shuttle car on 7 South section. He gave a

vivid, detailed account of the event from the time the explosive forces came into the working section until he and the seven other crew members with him were rescued via the Mahan's Run air shaft. Martin also dramatically described underground conditions and the devastation he observed after the initial explosion.

The videotapes of both interviews were reviewed and edited by NIOSH researchers for content. Careful attention was paid to ensure that valuable information with explicit teaching points was presented within a reasonable timeframe.

Results and Accomplishments

A 25-minute videotape and instructor's guide for use in safety training or other settings were developed. The target audience consists of all underground mine workers, regardless of commodity. This training video will help safety instructors better prepare both new, inexperienced miners as well as veterans for the situations they could encounter should they have to escape an underground mine following an explosion. This "expectations" training will help miners to better respond should an explosion occur. The training module will also provide a powerful reminder to all miners that it is critical to make safety an everyday practice.

For More Information

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To receive NIOSH documents or for more information about occupational safety and health topics, contact: **1-800-CDC-INFO** (1-800-232-4636), **1-888-232-6348 (TTY)**, e-mail: cdcinfo@cdc.gov, or visit the NIOSH Web site at <http://www.cdc.gov/niosh>

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