

ESCAPE FROM FARMINGTON

AN ORAL HISTORY

No. 9

INSTRUCTOR'S GUIDE
AND ADDITIONAL INFORMATION

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
OFFICE OF MINE SAFETY AND HEALTH RESEARCH



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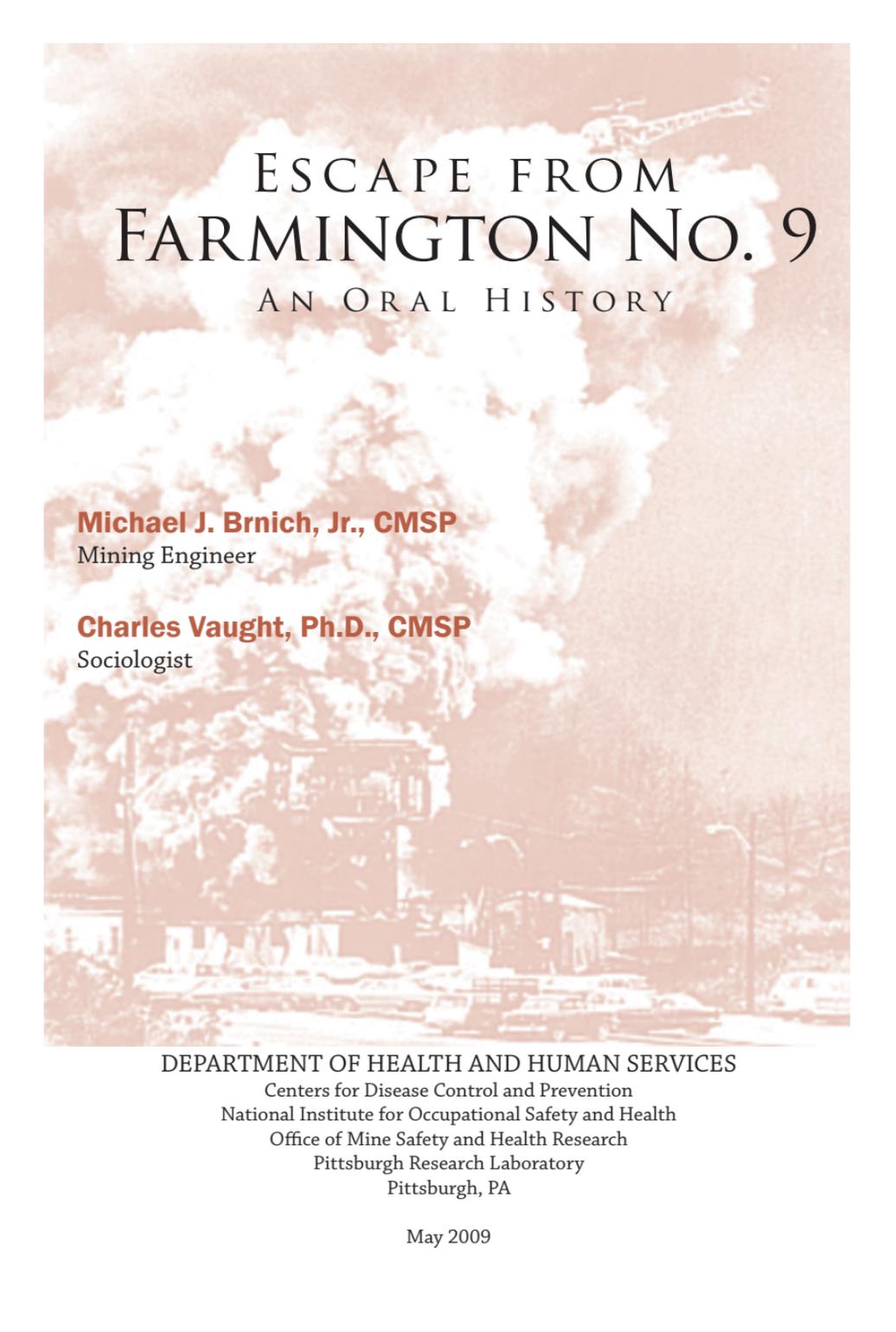
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Background

On November 20, 1968, a massive explosion rocked the underground workings of Mountaineer Coal Co.'s Farmington No. 9 Mine in West Virginia. 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 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. The Farmington No. 9 Mine disaster ultimately led to passage of the Federal Coal Mine Health and Safety Act of 1969 (amended in 1977).

Introduction

The primary purpose of this training module is to emphasize, to both new, inexperienced miners as well as veterans, 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. A second use for the module is to stimulate rank-and-file miners to think about mine explosions and the devastating effects they can have. The module can also reinforce to all miners that passage of the Federal Coal Mine Health and Safety Act of 1969 did not guarantee mining disasters would never happen again. Appendix A (p. 6) shows a historical timeline of major U.S. mine explosions and resulting legislation. Through the proper exercise of caution, good judgment, and sound mining practices, the likelihood of such events can be drastically reduced and their consequences alleviated.

During their interviews with NIOSH, Waitman "Bud" Hillberry and Gary Martin discuss the Farmington disaster, including the workplace climate leading up to the explosion. They 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.

Discussion Topics:

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 itself 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. Things that should not have happened the night of the explosion

Preparing for Class

This training module is designed to:

1. Help safety instructors prepare rank-and-file miners for the situations and conditions they may encounter should an underground coal mine explosion occur.
2. Give miners a better sense of the devastation that can occur from an explosion.

A mine map showing the location of 7 South section and the Mahan's Run air shaft is shown in Appendix C (p. 8) and on the DVD. The map will help you become oriented to these mine locations. Trainers are encouraged to print copies of the map for each trainee to use for reference before and while viewing the video. Trainers may also wish to print a poster-sized map that can be hung in the classroom for review and reference. A copy of the map can also be displayed on an overhead projector while the video is shown to trainees. View the video once or twice to become familiar with the critical points made. This will make you comfortable with it before you show it to the class.

After viewing the video, miners will have a powerful mental reminder that it is critical to make safety an everyday practice.

Materials Needed

You need some equipment in addition to this booklet and the DVD. These include:

1. A television monitor with a DVD player or PC with a projector and speakers.
2. An overhead projector if you want to display the mine map for the class.
3. Copies of the mine map from the DVD. (*NOTE: This image can also be enlarged to poster size for a classroom visual aid.*)

Conducting the Session

The DVD in this training package has been shown to be highly effective in stimulating classroom discussion. Instruction will be more meaningful, however, if it is kept within an instructional framework. Introductory comments about the Farmington No. 9 Mine explosion will help set the tone for the training session. This can be done by providing an overview of the event. Before showing the video, take a few minutes to review the mine map with trainees. This will help orient them to the locations discussed by Waitman Hillberry and Gary Martin. Refer to the background information found in Appendix B (p. 7). Following the video, Gary Martin provides some additional thoughts on being prepared for mine emergencies. Trainers are encouraged to review these short clips and discuss the points made by Mr. Martin with trainees in the class.

Discussion

The discussion following the video can be the most important part of the training exercise. Several points can be made about mine explosions and escape. These points should then be related back to your own mine operation.

Points that can be discussed with trainees include:

1. Miners tend to believe an explosion or fire won't occur at their mine. How do trainees in your class feel about this?
2. Ask trainees what can be done to reduce the chances of an explosion or fire at their mine.
3. When an explosion or fire occurs and workers are missing, fellow miners often want to go back to look for them. In 2001, an explosion occurred at the Jim Walter Resources No. 5 Mine in Alabama. Three miners were injured in the explosion and one had to be left behind due to injuries. When other miners heard that one of their buddies was missing, 11 of them decided to go into the section to look for and rescue the missing miner. On their way in, a second explosion occurred, resulting in the deaths of these 11 miners. Encourage trainees to talk about these concerns and their potential for causing additional injuries or fatalities.
4. Gary Martin talked about the importance of knowing how to properly use a gas mask in the event of a mine fire or explosion. While these are no longer in use today, this insight could lead into a discussion with trainees on how to properly don and use their self-rescuers.
5. Gary Martin also discussed how carbon monoxide can affect rational thinking. He illustrated this with the story of his coworker who drank a large amount of hot coffee without flinching and suggested that his buddy may not have been thinking clearly. Mr. Martin also talked about the importance of keeping one's self-rescuer on, even in clear air. Encourage trainees to talk about these concerns and the potential for causing additional injuries or fatalities.
6. It is clear from his account that Gary Martin did a substantial amount of talking on the mine phone in a contaminated atmosphere. Discuss with trainees the implications of removing one's self-rescuer mouthpiece to talk and how they might communicate without removing the mouthpiece.
7. Ask trainees to talk about what they learned from the video and how they will use this knowledge in the future.

Concluding the Training Session

You may want to find out trainees' thoughts about the presentation. Be sure to allow time after the presentation for a brief discussion. Miners may be able to suggest variations or ideas for improving the activity.

Additional Resources

- Mine Safety and Health Administration [1989]. Informational Report of Investigation: Underground Coal Mine Explosion and Fire, Consol No. 9 Mine, Mountaineer Coal Company, Division of Consolidation Coal Co., Farmington, Marion County, West Virginia, November 20, 1968. Available from the Mine Safety and Health Administration, National Mine Health and Safety Academy, Beaver, WV; phone (304) 256-3257; e-mail: MSHADistributionCenter@dol.gov.
- Mine Safety and Health Administration [2002]. Report of Investigation: Fatal Underground Coal Mine Explosions, September 23, 2001, No. 5 Mine, Jim Walter Resources, Inc., Brookwood, Tuscaloosa County, Alabama, ID No. 01-01322.
- Recovery of Farmington #9: An Interview with Danny Kuhn [2000]. A video training module available from the Mine Safety and Health Administration, National Mine Health and Safety Academy, Beaver, WV; phone (304) 256-3257; e-mail: MSHADistributionCenter@dol.gov, Catalogue No. VC 958.

Acknowledgments

Charles W. Urban, video production

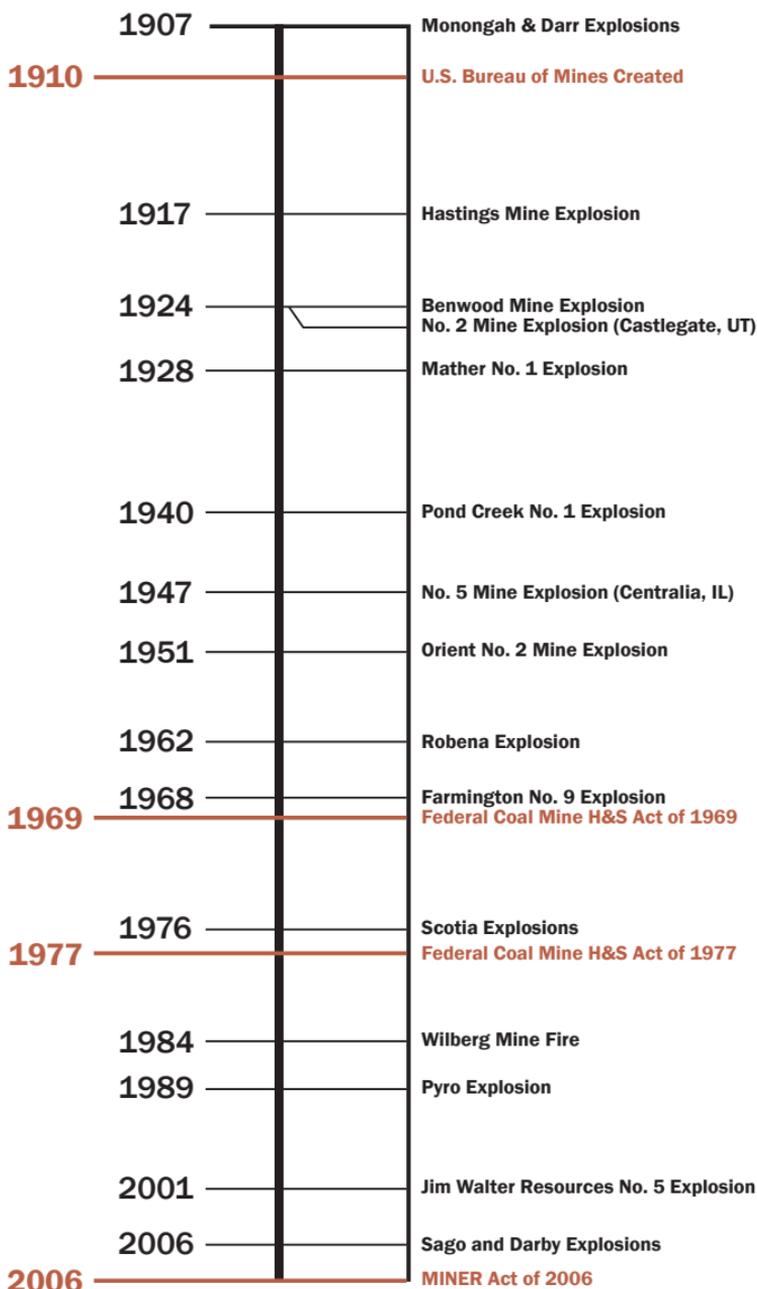
Charles Taylor, narrator

David L. Caruso, DVD authoring and print information design

Robert J. Tuchman, instructor's guide editing

Thomas Hall, West Virginia University Mining Extension Program

Appendix A



TIMELINE of Major US Coal Mine Disasters and Associated Legislation

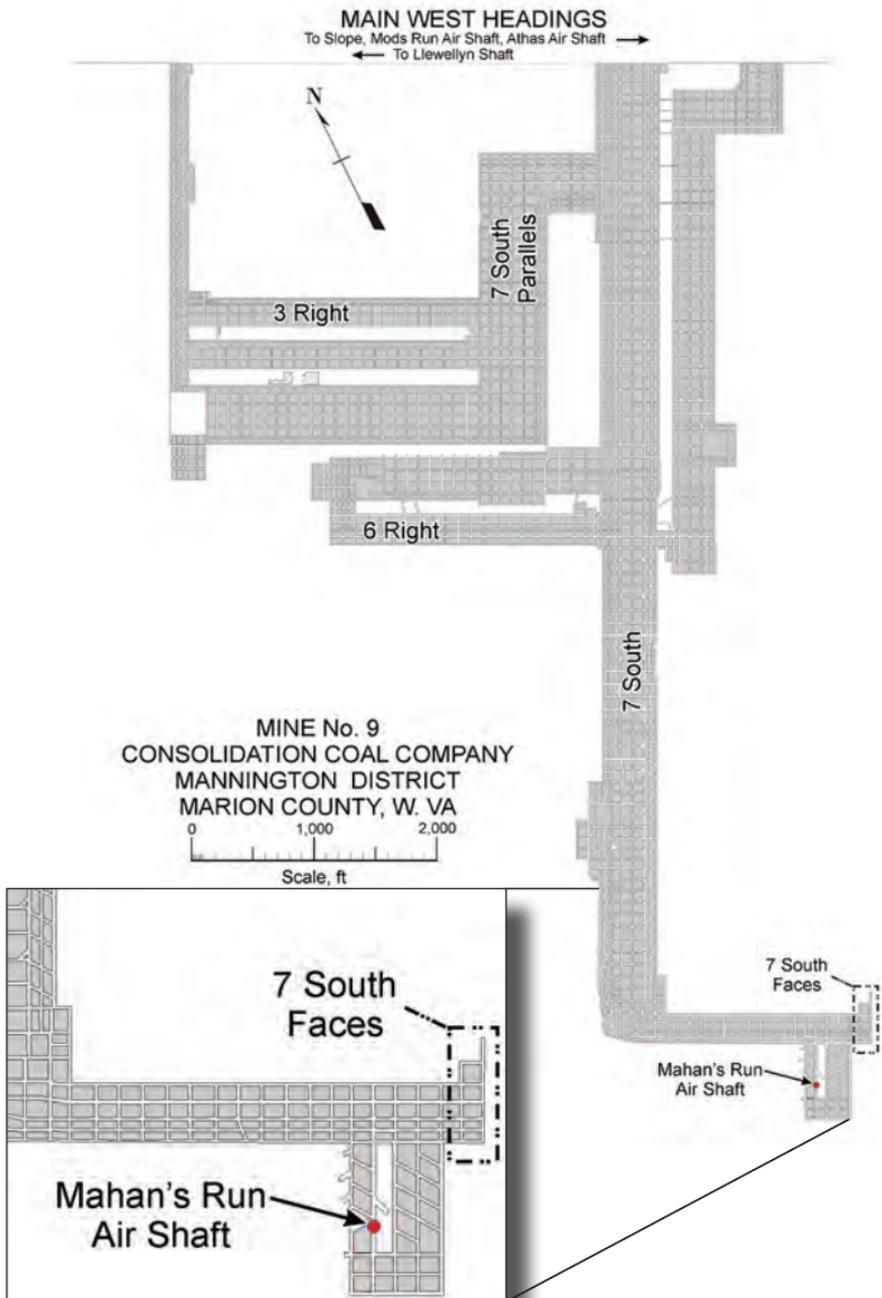
Appendix B - The Explosion

At about 5:30 a.m. on Wednesday, November 20, 1968, an explosion rocked the No. 9 Mine of Mountaineer Coal Co. in Farmington, WV. The explosion killed 78 of 99 miners who were working in the mine. The remaining 21 miners survived the explosion and escaped to the surface. Many were working in areas of the mine unaffected by the explosion. Survivors included seven miners working in the A Face production section on the east side of the mine, four miners working near the slope bottom, and two miners working near the Athas Run Shaft. Eight miners working in a section near the newly constructed Mahan's Run Shaft were rescued from the shaft by a mobile crane equipped with a three-man bucket on a steel cable.

The forces of the explosion covered the west side of the mine in by the Plum Run overcasts. This area included nine active working sections. Ventilation devices including stoppings, overcasts, and regulators were either damaged or destroyed. Surface facilities including the Nos. 3 and 4 fans, hoisting equipment in and above Llewellyn Shaft, and a portion of the combination lamp, bath, and supply house were also destroyed.

Mine fires along with a number of major and minor explosions plagued the mine, preventing rescue and recovery operations. The mine was sealed on November 30, 1968. The mine was reopened in September 1969 and operations were begun to recover the remains of the 78 workers who died. These efforts continued until April 1978. The mine was permanently sealed in November 1978 after 59 victims were recovered. Lessons learned in the early part of the investigation of this explosion were incorporated into the Federal Coal Mine Health and Safety Act of 1969. The investigation was not completed, and the actual cause of the explosion was never determined. An informational report on the explosion is available from the Mine Safety and Health Administration (see "Additional Resources" on p. 5).

Appendix C – Map of the 7 South Section





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