

## **Instructor's Guide**

### **ROOF FALL ENTRAPMENT VIDEOTAPE**

*Dave Murone's Account*

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This instructor's guide is designed to accompany a videotape of an interview with a miner who tells about recovering the body of a friend who was killed by a roof fall. The individual who was killed was in by supports at the time of the accident. Dave speculates on why his friend was under unsupported top and discusses the effect that witnessing this accident had on him. The video would be beneficial for use with anyone who works underground. This guide contains suggestions to help you use the tape as part of an effective training session.

#### **Other Tapes in This Series**

There are three videotapes in this series. Each is approximately 12 minutes long and deals with the experience of one miner just before, during, and after a serious roof fall. The individuals on the tapes are not professional actors, but are miners or former miners. The videotapes all follow the same format. First the miner tells about the event and then an interviewer asks some specific questions so that important points will be covered. While all three of the tapes illustrate the dangers of unsupported top, each presents the information with a different focus. Descriptions of the other two tapes follow:

#### **Larry Strayer's Account**

Larry tells about a fall that occurred while he and another miner were attempting to bar down top just in by the last row of supports. He explains that the other miner was injured but eventually recovered. Larry, however, lost a leg as a result of this accident. It is stressed that going even a short distance in by supports is not worth the possible outcome of an accident.

#### **Dave Garry's Account**

Dave, a miner helper, tells about witnessing a roof fall that covered the continuous mining machine. He discusses efforts that were made in by supports to rescue the trapped, but unharmed operator. He recognizes that danger could have been minimized by installing temporary supports before continuing rescue.

#### **Preparing for Class**

Read through the rest of this guide and view the videotape to become familiar with the presentation. Review the **Discussion Ideas** section of this guide for help with preparing to lead the class discussion. For more information you may want to look at the items listed below as **Other Resources**.

The only materials necessary for this training session are a VHS player and a monitor that can be clearly seen and heard by all members in the class. If desired, the

pages showing a diagram of the accident scene and the list of discussion questions could be copied to hand out to each trainee or put onto transparencies and shown on an overhead projector.

The videotape can be shown with little or no introduction. However, if the class is not familiar with longwall mining, it may be helpful to explain that line rooms are long wall recovery entries. In the video when Dave refers to a lift, he is talking about a cut taken by the continuous miner parallel to either the left or right rib. A lift "on the canvas side" would be a cut taken by a continuous miner along the rib on which the line curtain is hung. Showing the diagram on an overhead may also help class members to understand what was happening at the time of the fall.

The discussion following the videotape is the most important part of the training exercise. One method for leading this activity is to divide your class into small groups and ask them to decide on joint answers to the discussion questions provided in this guide. Give them a limited amount of time to arrive at answers and then ask each group to report their answers to the class. Be sure to leave enough time for the entire class to discuss the responses.

#### **Other Resources**

1. Short articles on this subject by Robert Peters and Arnold Love appear in the first four issues of the 1992 *Holmes Safety Bulletin*.
2. Bureau of Mines IC Reports 9283 and 9300. Contact Robert Peters at (412) 892-6895.

*If you have questions or comments concerning this Instructor's Guide contact Launa Mallett, Bureau of Mines (412) 892-6658.*

## Discussion Ideas for the Instructor

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After viewing the videotape, trainees should be given an opportunity to ask questions and express their ideas and opinions about the material that was presented. They should be encouraged to relate the discussion to their work setting. Questions that may be used to guide the class discussion and information related to each are provided below. Choose questions that are appropriate for the class members and can be talked about within the time that you have available for the session.

**1. Should the rescuers have taken the time to support the roof before attempting to help the trapped miner? Why or why not?**

Miners should always be trained to set supports before attempting to rescue anyone. This protects the rescuers and the trapped miner. Miners in your class may bring up the point that given the position of the trapped individual with respect to pieces of fallen rock and mining equipment, it may not be physically possible to find a place to set adequate roof supports before rescuing the person. While this may be true and miners sometimes take such risks during rescue efforts, they should never be encouraged to do so. In the tape, Dave explains that he tried to use a jack to lift the rock that was on top of the victim's body. This suggests that temporary supports were available at the scene, and that miners should have thought of using them to support the top before extracting the victim from beneath the fallen material.

**2. Do you ever feel that your co-workers think you should go under unsupported roof to do something?**

Miners sometimes see co-workers do things under unsupported top, and feel that they are expected to follow that bad example. Although going under unsupported roof is very dangerous, it appears that some miners are ignoring the hazard. Bureau of Mines researchers recently asked 250 miners from six different mines if they had observed any of their co-workers in by supported top within the past six months. A little over half answered "yes". Those who said yes were asked if they thought the person in by supports was aware that (s)he was under unsupported roof. Seventy-two percent said they thought the person was aware, i.e., it was an intentional act. In the tape, Dave points out that he had experienced peer pressure to go under unsupported roof, and that it can be hard to combat. It is important to remind your trainees that an accident at work could have a significant effect, not only on them, but on their families. Reinforce that even though some people may choose to take risks, they do not have the right to put anyone else in danger. Discuss each miner's right not to give in to peer pressure when it comes to personal safety. Remind them that if they become involved in a serious accident while at work, it will be them and their families who will suffer the consequences.

**3. Does your mine have a plan concerning what**

**miners are to do in the event that a roof fall causes people or equipment to be trapped? If yes, what are you supposed to do according to that plan?**

This question can be used to determine if each miner understands company procedures for actions to be taken when a roof fall occurs. Discuss who should be contacted and what actions, if any, should be taken by the miners at the scene of the fall.

**4. Can you think of one or two situations which might cause you or your co-workers to go under unsupported top? Can equipment or work procedures be changed to prevent that situation from coming up in the future?**

Recent Bureau of Mines research has shown that miners often know of tasks that make going under unsupported top more likely. Furthermore, they sometimes think of ways to eliminate that hazard. See the Holmes articles listed in **Other Resources** for more information.

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**DISCUSSION QUESTIONS for DAVE MURONE'S ACCOUNT**

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1. **Should the rescuers have taken the time to support the roof before attempting to help the trapped miner? Why or why not?**

2. **Do you ever feel that your co-workers think you should go under unsupported roof to do something?**

3. **Does your mine have a plan concerning what miners are to do in the event that a roof fall causes people or equipment to be trapped?**

**If yes, what are you supposed to do according to that plan?**

4. **Can you think of one or two situations which might cause you or your co-workers to go under unsupported top?**

**Can equipment or work procedures be changed to prevent that situation from coming up in the future?**

**GROUND FALL ACCIDENT STATISTICS 1986-1990**

Fatalities	95*
Injuries	4,299
Non-injury accidents	11,288
<b>Total</b>	<b>15,682</b>

*\*Half of these fatalities occurred under unsupported roof.  
Groundfalls are the leading cause of fatalities in U.S.  
underground coal mines.*