



Fire Protection

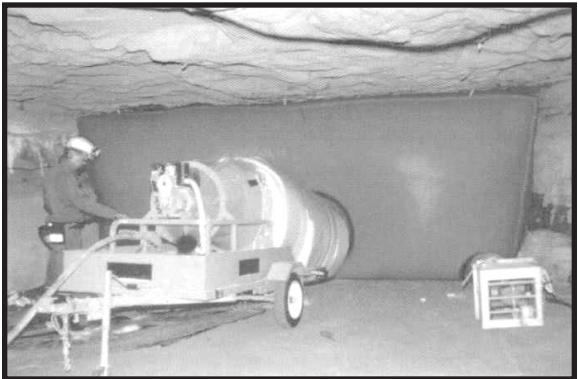
Best Practice Series BP-86

A foam generator can be an effective tool for fighting a fire. A high expansion foam generator can attack a fire from distances up to 1500 feet, and reduce the exposure of miners to the immediate fire area. High expansion foam can be pushed into the fire area or parallel entries to reduce oxygen levels in the fire area and to cool the fire.

- **ALWAYS** train miners to properly operate a foam generator.
- **ALWAYS** use smoke-free air to produce an effective foam.
- **ALWAYS** have an adequate supply of foam concentrate for fire fighting capabilities kept at the mine site.
- **ALWAYS** operate a high expansion foam generator such that no air, other than the air contained in the foam, can reach the site of the fire.
- **ALWAYS** match the flow ratings when using separate foam nozzles and proportioners.
- **ALWAYS** ensure that the foam concentrate is compatible with your equipment and water supply.
- **ALWAYS** operate a foam generator within the suggested pressure range.
- **ALWAYS** conduct periodic testing and inspections of your foam generators to ensure proper operation.
- **ALWAYS** remember that foam concentrate has a shelf life, and expiration dates should be checked periodically.
- **NEVER** use foam concentrate that is stored in open containers, or was previously frozen, for fire fighting.
- **NEVER** operate a foam generator without pressure gauges.

It Happened . . .

- An equipment fire occurred involving an excavator loading machine. Several attempts were made to extinguish the fire with dry chemicals and water but were unsuccessful. Finally, low expansion foam was applied to extinguish the fire.
- A mine fire occurred on the tailgate of a longwall. A grease seal failed in the tailgate sprocket causing oil to leak out. Heat from the bearing ignited the oil on the floor. Foam was brought to the area and applied along with fire extinguishers and rock dust to extinguish the fire.



Example of a foam generator in use

Arrive Home Alive

**U.S. Department of Labor
Mine Safety and Health Administration
Visit our Web site at www.msha.gov**

June 2006