

# Winter Alert for Coal Mines



## Best Practice Series BP-65

### **MINE EXPLOSIONS ARE MAN-MADE!**

Many mine explosions have occurred during winter months. Extra steps should be taken to eliminate major causes of methane and coal dust accumulations and ignition sources which may lead to explosions.

#### **Causes**

Mine explosions occur as a result of:

- Improperly designed and maintained bleeder systems.
- Incomplete or inadequate mine examinations.
- Accumulations of methane in idle workings, along pillar lines, and in cavities and other places in the mine roof.
- Inadequate/ineffective smoking prevention programs.
- Improperly maintained/nonpermissible equipment.
- Inadequate rock dusting and cleanup programs.

#### **Preventive Measures**

To prevent mine explosions during the winter months:

- ✓ Ensure bleeder systems are properly designed and maintained.
- ✓ Conduct complete and thorough examinations to ensure safe work places.

- ✓ Provide adequate ventilation and controls.
- ✓ Know the smoking prevention program for the mine and be on the lookout for evidence of smoking underground.
- ✓ Report any evidence of smoking underground to mine management.
- ✓ Maintain electrical and diesel equipment in permissible condition where required.
- ✓ Know and follow the mine's cleanup program and provide adequate rock dust in all areas.

Mine explosions have often been caused by not complying with basic ventilation regulations or failing to follow prudent mining practices. Accident investigations have shown that methane accumulations, which should have been identified by routine mine examinations, have gone undetected and were then ignited, resulting in tragedy. These dangers should be discussed during routine safety talks with miners. In addition, miners should also be reminded that all mine personnel share the responsibility to protect everyone's safety by following prudent mining practices.

*Arrive Home Alive*

**U.S. Department of Labor  
Mine Safety and Health Administration  
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