# Water Supply

# Fire Protection



# **Best Practice Series BP-87**

Hoses and nozzles should be stored properly, in sufficient quantities, and at easily accessible locations. Additional water hose for equipment operation can also be stored at or near fire hose storage locations to provide additional resources for fire fighting.

#### **LOCATIONS**

- ✓ Portable Water Cars (300 feet of hose)
- ✓ Section Loading Point (capable of reaching the face)
- ✓ Strategic Locations Along Belt Conveyors (500 feet of hose, or hose equal to the length of the belt, if the belt is less than 500 feet in length)
- ALWAYS standardize thread for hose, nozzle, and pipe connections.
- ALWAYS install manifolds with multiple hose connections so that more than one hose can be used to attack a mine fire.
- ALWAYS install manifolds in the upright position upwind of the belt drive so a suppression system and a fire hose can be operated simultaneously.
- ALWAYS store short, coiled lengths of fire hose for easy handling and transportation.
- ALWAYS use fire hose nozzles rated for the mine's water pressure.
- ALWAYS check for missing gaskets when connecting fire hose.
- ALWAYS test fire hose annually with the pressure available at required mine locations.
- ALWAYS store fire hose, nozzles, and related supplies in protective, well marked containers.
- · NEVER travel over fire hose with a mine vehicle.
- NEVER drag fire hose over sharp objects.
- NEVER allow hose to become pinched between equipment and the mine floor.

# **Tips for Fire Hose Installations**

- Equip fire taps with gated wye valves so that two hoses can be brought into service on a fire simultaneously.
- Provide clamped or pinned type coupling in the water hose joint nearest to a continuous miner to allow a rapid switchover for fire fighting use.
- Provide regulators for high water pressure situations.
- Maintain a laminated list of equipment at each storage location to enhance routine inspections.

# It Happened . . .

- A roof fall in the trolley haulage entry caused an energized trolley wire to come in contact with combustible material from the roof fall. The mine was evacuated. Water from fire hoses was eventually used to extinguish the fire.
- The metal cables in a slope belt were caught in a return roller causing it to stick and create heat. The belt caught fire and was extinguished with water from fire hoses.
- Smoke was detected coming from a battery compartment of a personnel carrier parked in a charging station. A battery fault occurred causing a fire. It was extinguished using water from a fire hose.



Example of manifolds, fire hoses, and nozzles commonly used

Arrive Home Alive

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