

U.S. Department of Labor
Mine Safety and Health Administration
Protecting Miners' Safety and Health Since 1978

SAFETY ALERT
LIGHTNING HAZARDS

According to the Weather Channel website, lightning strikes the earth an estimated 100 times per second and there are as many as 20 million cloud-to-ground strikes in the U.S. per year (<http://www.weather.com/outlook/wxready/articles/id-47>). Lightning can reach over 5 miles in length, can reach a temperature of approximately 50,000° F, and can contain over 100 million volts. Lightning can strike before a thunderstorm reaches you. If you hear thunder you are close enough to be struck by lightning. Lightning strikes the best conductor on the ground, which is not necessarily the tallest object. In some cases, the best conductor might be you! Lightning has struck boreholes reaching into underground mines causing damage to seals, and has caused premature detonations of loaded blast holes at surface mines. The best practices below should be used as a guide to reduce the potential for injuries and fatalities due to lightning.



BEST PRACTICES

- Avoid open areas and stay away from isolated tall objects.
- Seek shelter in a substantial building or, if a substantial building isn't available, inside a hard-topped vehicle.
- Inside a shelter, stay away from doors, windows, wired phone lines, and water and avoid contact with electrical appliances and computers.
- Upon approach of an electrical storm at surface mines, discontinue charging a blast round when electric detonators are used and withdraw persons to a safe location.
- If operating a surface drill, seek shelter in another vehicle, such as a pick-up truck, until the storm passes.
- Stay away from surface boreholes.
- Follow all regulations for grounding, lightning arrestors, and removing insulated cables, batteries, and other potential electric ignition sources from areas to be sealed.



REMEMBER:
Safety depends upon what you
DO or DON'T DO.