



SAFETY ALERT

Methane Ignitions

Methane ignitions during mining and roof bolting operations have the potential to cause serious injuries and fatalities. These ignitions can also cause more destructive explosions, especially when rock dust is not adequately applied. Mine operators and miners need to be aware of problems that can lead to ignitions and be proactive in preventing them. Recently, there have been several non-injury ignitions. The following Best Practices can help prevent methane ignitions.

Best Practices

- Conduct thorough preshift examinations of working places to identify sources of methane and other hazards; correct all hazardous conditions before allowing any work or travel in the area
- Maintain face equipment in permissible condition
- Check bits and lugs before each cut and replace any that are broken or worn excessively; check bits and lugs more often when mining a lot of rock
- Check water sprays before each cut and ensure they are maintained in proper working condition and that proper pressure is provided; provide and maintain adequate filtration to prevent clogging
- Properly calibrate and maintain methane monitors; calibrate more often than every 31 days when mining areas with high methane liberation rates
- Ensure the quantity of air delivered to the face meets minimum ventilation plan requirements; provide more air if necessary to dilute, render harmless, and carry away flammable, explosive, noxious, and harmful gases, dusts, and fumes
- Ensure all ventilation controls, including face ventilation curtain and tubing, are properly installed and maintained
- Conduct thorough tests for methane immediately before equipment is energized, taken into, or operated in a working place
- Conduct thorough tests for methane at 20-minute intervals during the operation of equipment in a working place; conduct these tests more often in areas with high methane liberation rates
- Check drill bits often during roof bolting operations
- Clean up combustible materials and apply generous amounts of rock dust to prevent the propagation of ignitions and explosions; continuously apply rock dust downwind of mining and in longwall tailgate entries