

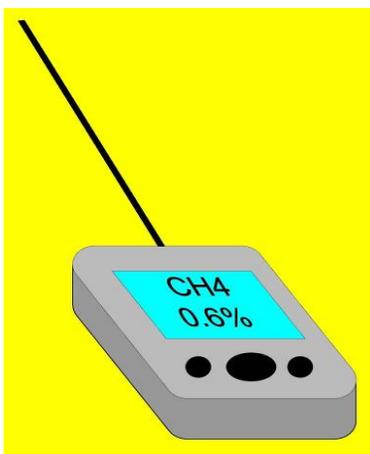


## U. S. Department of Labor MSHA's Accident Prevention Safety Tip



### Cutting and Welding Gas Checks

Since 2003, eight miners were killed in two separate events resulting from the use of cutting torches. Methane tests are critical for safe cutting or welding in underground coal mines and are somewhat different from methane tests used for general mine ventilation where tests are made at least 12 inches from the roof, face, ribs and floor. This distance requirement is not applicable to cutting or welding activities when methane tests must be made in locations where methane is likely to exist. Methane tests must be made at or near the surface of these areas (not 12 inches away) and within any fully or partially enclosed areas that may be exposed to the ignition sources. In no case is cutting or welding permitted in an atmosphere that contains 1.0 percent or more of methane.



As an example, in a longwall mining system, adequate testing, cleaning, and rock dusting will generally require raising the chain conveyor and securing it above the mine floor before cutting or welding operations begin. In this way, the space beneath the conveyor line can be ventilated and tested for methane, accumulated combustibles can be removed, and the area can be thoroughly wet down and rock dusted. Where raising the conveyor line is not practicable, other measures may be necessary to minimize the danger of ignitions. MSHA recommends using a probe connected to a detector for methane examinations in hard to reach areas.

During and after the cutting or welding a diligent search must be made for fire. This is a particularly important precaution because longwall chain conveyor line components or covers on other types of equipment may obscure a small fire.

Additional information can be found in MSHA's PROGRAM POLICY MANUAL: **§75.1106 Welding, Cutting, or Soldering with Arc or Flame Underground** at <http://www.msha.gov/REGS/COMPLIAN/PPM/PMVOL5K.HTM#132>.

If you have a tip you would like to pass on, you can e-mail it

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If your tip is selected, you will receive credit in this space.