

- ✓ **ALWAYS** remove regulators when not in use and replace with a valve protection cap.
- ✓ **ALWAYS** replace damaged or contaminated regulators. Leave valves closed when cylinders are moved, hoses left unattended, or the welding task is finished.

AFTER WELDING OR CUTTING

- ✓ **ALWAYS** extinguish the torch according to established safety procedures.
- ✓ **ALWAYS** search the worksite for fire, burning cinders, or smoldering areas. Wet down the worksite with water if available.
- ✓ **NEVER** leave hoses and equipment in areas where people can trip or fall over them – return all supplies and equipment to proper storage.

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Welding and Cutting for Contractors



Best Practice Series

BP-22

Contractors performing services or construction at a mine fall under the jurisdiction of the Mine Act. This means that contractors must comply with the Federal Mine Safety and Health Act of 1977 (Mine Act) and the safety and health standards contained in Title 30 Code of Federal Regulations (30 CFR).

The Mine Safety and Health Administration (MSHA) is the Federal agency which administers the provisions of the Mine Act and enforces its requirements. MSHA issues citations and orders to contractors for violating safety and health laws. Each violation cited will result in the assessment of a civil penalty.

Contractors who perform work on mine property must be informed of hazards that exist on the property and are specific to the mine's operations.

Contractors and contractor employees have been injured and killed while performing construction and maintenance work.

Remember to:

- Always obtain directions to the work area, and information about mine hazards.
- Conduct work area examinations.
- Make sure equipment is safe to operate.
- Wear appropriate protective equipment.

- Wear safety belts and lines.
- Use welding shields.
- Make sure work area is well-ventilated.

The following safety tips are designed to help you weld and cut more safely. These items are generic and applicable to most types of welding and cutting when on or off mine property.

GENERAL SAFETY

- ✓ **ALWAYS** follow all safety rules and procedures – short cuts can kill.
- ✓ **ALWAYS** perform pre-operation safety checks on equipment.
- ✓ **ALWAYS** report any unsafe conditions immediately, and remove defective equipment from service.
- ✓ **ALWAYS** wear appropriate protective clothing and equipment.

BEFORE WELDING OR CUTTING

- ✓ **ALWAYS** check for the presence of explosive gases before performing work in a potentially explosive atmosphere. Make sure the area is well-ventilated.
- ✓ **ALWAYS** remove flammable materials or combustible material within 15 feet in all directions from the worksite before starting to weld, or isolate the worksite with shields.
- ✓ **ALWAYS** keep compressed gas cylinders and hoses at least 25 feet from the welding area.
- ✓ **ALWAYS** thoroughly clean used drums, barrels, etc., before welding or cutting. Purge closed containers before welding or cutting, and make sure they're ventilated.

- ✓ **ALWAYS** have sufficient firefighting equipment near the worksite. Use fire-watchers where potential fire hazards exist.
- ✓ **ALWAYS** move heavy loads and equipment or work pieces by using proper lifting techniques or lift equipment.

WORK PRACTICES

- ✓ **ALWAYS** weld or cut in a well-ventilated area to control hazardous concentrations of fumes and gases.
- ✓ **ALWAYS** continuously test for gas if performing work in a potentially explosive atmosphere.
- ✓ **ALWAYS** prevent potential shocks or electrocution – keep your clothing and hands dry at all times; don't weld in damp areas or stand in puddles of water, on damp ground, or against grounded metal. Remember – the work piece must be grounded.
- ✓ **ALWAYS** wear safety belts or lines whenever there's a danger of falling. Another person must tend your lifeline if you're working in a confined space.
- ✓ **NEVER** allow oxygen to contact grease or oil as a spontaneous ignition will occur.
- ✓ **ALWAYS** weld with dry electrodes to prevent bad welds and excessive spatter.

COMPRESSED GAS CYLINDERS

- ✓ **ALWAYS** handle and store oxygen and acetylene cylinders carefully to prevent leaks and internal damage.
- ✓ **ALWAYS** keep cylinders in an upright position.
- ✓ **ALWAYS** store full and empty cylinders separately and by gas type.