

- ✓ **ALWAYS** rest the stem on the bottom of the hole or on the platform with the stem secured to the mat before straightening a crossed cable on a reel.

JET PIERCING

- ✓ **NEVER** smoke or use open flames around oxygen storage and supply lines.
- ✓ **ALWAYS** make sure the pressurization is working in the cab, if appropriate.
- ✓ **ALWAYS** make sure the oxygen flow indicator is equipped with a proper safety cover.
- ✓ **ALWAYS** check to see that oxygen hose lines (1-inch inside diameter or greater) are provided with required safety chains or locking devices across connections.
- ✓ **ALWAYS** use required oxygen intake couplings.
- ✓ **ALWAYS** use appropriate personal protection when lighting the burner.
- ✓ **ALWAYS** refuel rotary jet piercing equipment at designated fueling stations. If you have to refuel at another location, make sure to use a system for fueling without spillage.
- ✓ **ALWAYS**, after pulling up a stem, flush with a suitable solvent the combustion chamber of a jet drill stem that has been sitting unoperated in a drill hole.

Arrive Home Alive

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

February 2006

Drilling for Metal/Nonmetal Contractors



Best Practice Series BP-31

Contractors performing services or construction at a mine fall under the jurisdiction of the Federal Mine Safety and Health Act of 1977 (Mine Act). This means that contractors must comply with the 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 which exist on the property and are specific to the mine's operations.

A number of independent contractors and contractor employees have been injured and killed while performing work on mine property.

Remember to:

- ✓ **NEVER** wear loose clothing, chains, rings, etc., when working around a drill.
- ✓ **ALWAYS** use appropriate personal protective equipment when drilling.
- ✓ **CONSTANTLY MONITOR** ground conditions.
- ✓ **ALWAYS** drill according to the plan.
- ✓ **NEVER** run equipment over loaded boreholes.
- ✓ **ALWAYS** handle drill steels carefully.

Every part of the drilling cycle has the potential for serious accidents or injuries. The principal causes of surface metal/nonmetal drilling and drilling-related accidents include: fall of ground or material, falling drill steel, and becoming caught in the drill. The best practices listed on this card are generic and apply to all types of surface metal/nonmetal mining.

GENERAL SAFETY

- ✓ **NEVER** wear loose clothing, chains, rings, etc., when working around a drill.
- ✓ **ALWAYS** use appropriate personal protective equipment when drilling. Protect your lungs, eyes, and ears.
- ✓ **NEVER** drill from a position that restricts your access to the drill's controls.
- ✓ **NEVER** drill from insecure footing or insecure staging.
- ✓ **CONSTANTLY MONITOR** ground conditions during all phases of drilling activities.

BEFORE DRILLING

- ✓ **ALWAYS** check highwalls for loose debris. Correct these problems before starting work.
- ✓ **ALWAYS** inspect the drill for safety problems.
- ✓ **REMOVE** defective equipment from service.

MOVING THE DRILL

- ✓ **ALWAYS** secure drill steel, tools, and other equipment before moving the drill from one area to another. Store equipment on proper racks and receptacles.
- ✓ **ALWAYS** place the drill mast in a safe position before moving the machine.
- ✓ **ALWAYS** pay attention to blind spots, changing ground conditions, and your surroundings when moving the drill.

- ✓ **ALWAYS** be aware of overhead power lines when moving the drill from one place to another or when raising the mast. Contact can kill.
- ✓ **NEVER** run over loaded blastholes.
- ✓ **ALWAYS** turn "off" and bleed the air from the hose before moving a hand-held drill.

OPERATING THE DRILL

- ✓ **ALWAYS** drill according to the plan. Get help if you encounter unexpected conditions.
- ✓ **ALWAYS** drill holes to the proper depth. Re-drill short holes.
- ✓ **NEVER** start holes in bootlegs.
- ✓ **NEVER** drill into explosive materials or into any hole that has contained explosive materials.
- ✓ **NEVER** allow the drill to run by itself (unattended).
- ✓ **ALWAYS** stay clear of moving auger or drill stems.
- ✓ **NEVER** pass under moving stems or augers.
- ✓ **NEVER** step over moving stems or augers.
- ✓ **ALWAYS** stay off the drill mast while the drill bit is working. If you must be on the mast, regulations require that you work from a safe platform and use a safety belt to keep from falling.
- ✓ **ALWAYS** drill wet.
- ✓ **ALWAYS** have water on the collar of the hole when drilling.
- ✓ **ALWAYS** handle drill steels carefully. Watch out for pinch points and get help moving and lifting steels if you need it.
- ✓ **ALWAYS** shut the drill off when changing steels.
- ✓ **ALWAYS** place drill controls in "neutral" if a power failure occurs.