



Metal and Nonmetal Mine Safety Alert

Drill Entanglement Accidents

Drillers are exposed to rotating machinery that can entangle clothing and body parts and result in fatal or seriously disabling injuries. Drillers working alone or in remote areas must be able to communicate with others and be heard or seen. Focus on safe job procedures, comply with drilling safety standards and follow best practices to reduce the risk of death or injury.

- A 22-year old rock drill operator with one year of experience was fatally injured when his clothing became entangled in a rotating drill steel while spot drilling at a dimension stone quarry.
- A 30-year old contract driller with six years of experience died at a shale quarry trying to manually thread a new drill steel while the drill head rotated.
- A 53-year old miner with thirty-two years of experience died in an underground metal mine when his clothing became entangled in the drill steel while operating a jackleg drill.

Best Practices

- ✓ Examine the drill and the surrounding work area before beginning drill operations. Assure that the area is free from tripping hazards and that drilling materials are safely arranged and well-organized to prevent accidents.
- ✓ Establish written policies for the type of clothing and methods to secure clothing when working around drills and assure the policies are followed. Do not wear loose-fitting or bulky clothing when working around drilling machinery.
- ✓ Avoid using objects that could become entangled with or thrown from moving or rotating parts.
- ✓ Stay clear of augers and drill stems that are in motion. Stop the drill rotation when performing tasks near the rotating steel. Never pass under or step over a moving drill stem or auger.
- ✓ Drill from a position with good footing and access to the controls.
- ✓ Never manually thread the drill steel while the drill head is rotating.
- ✓ Do not hold the drill steel when collaring holes, or rest your hands on the chuck or centralizer.
- ✓ Assure that machine controls and safety devices such as emergency shutdowns operate effectively. Never nullify or bypass machine control safety equipment.
- ✓ Place emergency shut-down devices, such as panic bars, slap bars, rope switches, two-handed controls, etc. in easily accessible locations.
- ✓ Safely position hoses and cables on and around drilling equipment. Design proper hangers, guides, stand-offs and entrances to eliminate the necessity of handling hoses or cables in close proximity to rotating or moving equipment.
- ✓ Communicate regularly and frequently with drillers to assure they are safe and well.



Photo courtesy Raimonde Drilling Corporation

*The topic for this **Safety Alert** was suggested by the Illinois Association of Aggregate Producers' Safety Committee. If you have a suggestion for a future **Alert**, please submit it to MNMAccidentPrevention@dol.gov*