### §57.6902

### § 57.6902 Excessive temperatures.

- (a) Where heat could cause premature detonation, explosive material shall not be loaded into hot areas, such as kilns or sprung holes.
- (b) When blasting sulfide ores where hot holes occur that may react with explosive material in blastholes, operators shall—
- (1) Measure an appropriate number of blasthole temperatures in order to assess the specific mine conditions prior to the introduction of explosive material:
- (2) Limit the time between the completion of loading and the initiation of the blast to no more than 12 hours; and
- (3) Take other special precautions to address the specific conditions at the mine to prevent premature detonation.

### § 57.6903 Burning explosive material.

If explosive material is suspected of burning at the blast site, persons shall be evacuated from the endangered area and shall not return for at least one hour after the burning or suspected burning has stopped.

## § 57.6904 Smoking and open flames.

Smoking and use of open flames shall not be permitted within 50 feet of explosive material except when separated by permanent noncombustible barriers. This standard does not apply to devices designed to ignite safety fuse or to heating devices which do not create a fire or explosion hazard.

# § 57.6905 Protection of explosive material.

- (a) Explosive material shall be protected from temperatures in excess of 150 degrees Fahrenheit.
- (b) Explosive material shall be protected from impact, except for tamping and dropping during loading.

GENERAL REQUIREMENTS— UNDERGROUND ONLY

### § 57.6960 Mixing of explosive material.

(a) The mixing of ingredients to produce explosive material shall not be conducted underground unless prior approval of the MSHA district manager is obtained. In granting or withholding approval, the district manager shall

consider the potential hazards created by—

- (1) The location of the stored material and the storage practices used;
- (2) The transportation and use of the explosive material;
- (3) The nature of the explosive material, including its sensitivity;
- (4) Any other factor deemed relevant to the safety of miners potentially exposed to the hazards associated with the mixing of the bulk explosive material underground.
- (b) Storage facilities for the ingredients to be mixed shall provide drainage away from the facilities for leaks and spills.

# Subpart F—Drilling and Rotary Jet Piercing

DRILLING—SURFACE ONLY

### § 57.7002 Equipment defects.

Equipment defects affecting safety shall be corrected before the equipment is used.

### §57.7003 Drill area inspection.

The drilling area shall be inspected for hazards before starting the drilling operations.

### § 57.7004 Drill mast.

Persons shall not be on a mast while the drill-bit is in operation unless they are provided with a safe platform from which to work and they are required to use safety belts to avoid falling.

### §57.7005 Augers and drill stems.

Drill crews and others shall stay clear of augers or drill stems that are in motion. Persons shall not pass under or step over a moving stem or auger.

### § 57.7008 Moving the drill.

When a drill is being moved from one drilling area to another, drill steel, tools, and other equipment shall be secured and the mast placed in a safe position.

### §57.7009 Drill helpers.

If a drill helper assists the drill operator during movement of a drill to a new location, the helper shall be in

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sight of, or in communication with, the operator at all times.

#### § 57.7010 Power failures.

In the event of power failure, drill controls shall be placed in the neutral position until power is restored.

### §57.7011 Straightening crossed cables.

The drill stem shall be resting on the bottom of the hole or on the platform with the stem secured to the mast before attempts are made to straighten a crossed cable on a reel.

### §57.7012 Tending drills in operation.

While in operation, drills shall be attended at all times.

# § 57.7013 Covering or guarding drill holes.

Drill holes large enough to constitute a hazard shall be covered or guarded.

### §57.7018 Hand clearance.

Persons shall not hold the drill steel while collaring holes, or rest their hands on the chuck or centralizer while drilling.

DRILLING-UNDERGROUND ONLY

### § 57.7028 Hand clearance.

Persons shall not rest their hands on the chuck or centralizer while drilling.

### § 57.7032 Anchoring.

Columns and the drills mounted on them shall be anchored firmly before and during drilling.

DRILLING—SURFACE AND UNDERGROUND

### § 57.7050 Tool and drill steel racks.

Receptacles or racks shall be provided for drill steel and tools stored or carried on drills.

# § 57.7051 Loose objects on the mast or drill platform.

To prevent injury to personnel, tools and other objects shall not be left loose on the mast or drill platform.

## § 57.7052 Drilling positions.

Persons shall not drill from—

(a) Positions which hinder their access to the control levers;

- (b) Insecure footing or insecure staging; or
- (c) Atop equipment not suitable for drilling.

### §57.7053 Moving hand-held drills.

Before hand-held drills are moved from one working area to another, air shall be turned off and bled from the hose

# § 57.7054 Starting or moving drill equipment.

Drill operators shall not start or move drilling equipment unless all miners are in the clear.

### § 57.7055 Intersecting holes.

Holes shall not be drilled where there is a danger of intersecting a misfired hole or a hole containing explosives, blasting agents, or detonators.

[56 FR 46517, Sept. 12, 1991; 56 FR 52193, Oct. 18, 1991]

### § 57.7056 Collaring in bootlegs.

Holes shall not be collared in bootless

[56 FR 46517, Sept. 12, 1991]

ROTARY JET PIERCING—SURFACE ONLY

# § 57.7801 Jet drills.

Jet piercing drills shall be provided with:

- (a) A system to pressurize the equipment operator's cab, when a cab is provided: and
- (b) A protective cover over the oxygen flow indicator.

### § 57.7802 Oxygen hose lines.

Safety chains or other suitable locking devices shall be provided across connections to and between high pressure oxygen hose lines of 1-inch inside diameter or larger.

## §57.7803 Lighting the burner.

A suitable means of protection shall be provided for the employee when lighting the burner.

### § 57.7804 Refueling.

When rotary jet piercing equipment requires refueling at locations other than fueling stations, a system for