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- (b) Readily available wrenches or keys to open the valves; and
- (c) Readily available adapters capable of connecting hydrant fittings to the hose equipment of any firefighting organization relied upon by the mine.

## § 57.4203 Extinguisher recharging or replacement.

Fire extinguishers shall be recharged or replaced with a fully charged extinguisher promptly after any discharge.

## § 57.4230 Surface self-propelled equipment.

- (a)(1) Whenever a fire or its effects could impede escape from self-propelled equipment, a fire extinguisher shall be on the equipment.
- (2) Whenever a fire or its effects would not impede escape from the equipment but could affect the escape of other persons in the area, a fire extinguisher shall be on the equipment or within 100 feet of the equipment.
- (b) A fire suppression system may be used as an alternative to fire extinguishers if the system can be manually activated.
- (c) Fire extinguishers or fire suppression systems shall be of a type and size that can extinguish fires of any class in their early stages which could originate from the equipment's inherent fire hazards. Fire extinguishers or manual actuators for the suppression system shall be located to permit their use by persons whose escape could be impeded by fire.

## § 57.4260 Underground self-propelled equipment.

- (a) Whenever self-propelled equipment is used underground, a fire extinguisher shall be on the equipment. This standard does not apply to compressedair powered equipment without inherent fire hazards.
- (b) A fire suppression system may be used as an alternative to fire extinguishers if the system can be manually actuated.
- (c) Fire extinguishers or fire suppression systems shall be of a type and size that can extinguish fires of any class in their early stages which could originate from the equipment's inherent fire hazards. The fire extinguishers or the manual actuator for the suppres-

sion system shall be readily accessible to the equipment operator.

#### § 57.4261 Shaft-station waterlines.

Waterline outlets that are located at underground shaft stations and are part of the mine's fire protection system shall have at least one fitting located for, and capable of, immediate connection to firefighting equipment.

# § 57.4262 Underground transformer stations, combustible liquid storage and dispensing areas, pump rooms, compressor rooms, and hoist rooms.

Transformer stations, storage and dispensing areas for combustible liquids, pump rooms, compressor rooms, and hoist rooms shall be provided with fire protection of a type, size, and quantity that can extinguish fires of any class in their early stages which could occur as a result of the hazards present.

#### §57.4263 Underground belt conveyors.

Fire protection shall be provided at the head, tail, drive, and take-up pulleys of underground belt conveyors. Provisions shall be made for extinguishing fires along the beltline. Fire protection shall be of a type, size, and quantity that can extinguish fires of any class in their early stages which could occur as a result of the fire hazards present.

FIREFIGHTING PROCEDURES/ALARMS/DRILLS

## \$57.4330 Surface firefighting, evacuation, and rescue procedures.

- (a) Mine operators shall establish emergency firefighting, evacuation, and rescue procedures for the surface portions of their operations. These procedures shall be coordinated in advance with available firefighting organizations.
- (b) Fire alarm procedures or systems shall be established to promptly warn every person who could be endangered by a fire.
- (c) Fire alarm systems shall be maintained in operable condition.

#### § 57.4331 Surface firefighting drills.

Emergency firefighting drills shall be held at least once every six months for

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persons assigned surface firefighting responsibilities by the mine operator.

#### § 57.4360 Underground alarm systems.

- (a) Fire alarm systems capable of promptly warning every person underground, except as provided in paragraph (b), shall be provided and maintained in operating condition.
- (b) If persons are assigned to work areas beyond the warning capabilities of the system, provisions shall be made to alert them in a manner to provide for their safe evacuation in the event of a fire.

### § 57.4361 Underground evacuation drills.

- (a) At least once every six months, mine evacuation drills shall be held to assess the ability of all persons underground to reach the surface or other designated points of safety within the time limits of the self-rescue devices that would be used during an actual emergency.
  - (b) The evacuation drills shall—
- (1) Be held for each shift at some time other than a shift change and involve all persons underground:
- (2) Involve activation of the fire alarm system; and
- (3) Include evacuation of all persons from their work areas to the surface or to designated central evacuation points.
- (c) At the completion of each drill, the mine operator shall certify the date and the time the evacuation began and ended. Certifications shall be retained for at least one year after each drill.

#### § 57.4362 Underground rescue and firefighting operations.

Following evacuation of a mine in a fire emergency, only persons wearing and trained in the use of mine rescue apparatus shall participate in rescue and firefighting operations in advance of the fresh air base.

## § 57.4363 Underground evacuation instruction.

(a) At least once every twelve months, all persons who work underground shall be instructed in the escape and evacuation plans and procedures and fire warning signals in effect at the mine.

- (b) Whenever a change is made in escape and evacuation plans and procedures for any area of the mine, all persons affected shall be instructed in the new plans or procedures.
- (c) Whenever persons are assigned to work in areas other than their regularly assigned areas, they shall be instructed about the escapeway for that area at the time of such assignment. However, persons who normally work in more than one area of the mine shall be instructed at least once every twelve months about the location of escapeways for all areas of the mine in which they normally work or travel.
- (d) At the completion of any instruction given under this standard, the mine operator shall certify the date that the instruction was given. Certifications shall be retained for at least one year.

FLAMMABLE AND COMBUSTIBLE LIQUIDS AND GASES

#### § 57.4400 Use restrictions.

- (a) Flammable liquids shall not be used for cleaning.
- (b) Solvents shall not be used near an open flame or other ignition source, near any source of heat, or in an atmosphere that can elevate the temperature of the solvent above the flash point.

#### § 57.4401 Storage tank foundations.

Fixed, unburied, flammable or combustible liquid storage tanks shall be securely mounted on firm foundations. Piping shall be provided with flexible connections or other special fittings where necessary to prevent leaks caused by tanks settling.

#### § 57.4402 Safety can use.

Small quantities of flammable liquids drawn from storage shall be kept in safety cans labeled to indicate the contents.

#### § 57.4430 Surface storage facilities.

The requirements of this standard apply to surface areas only.

(a) Storage tanks for flammable or combustible liquids shall be—