

§ 57.4160 Underground electric substations and liquid storage facilities.

The requirements of this standard apply to underground areas only.

(a) Areas within 25 feet of the following shall be free of combustible materials:

- (1) Electric substations.
- (2) Unburied, combustible liquid storage tanks.
- (3) Any group of containers used for storage of more than 60 gallons of combustible liquids.

(b) This standard does not apply to installed wiring or timber that is coated with at least one inch of shotcrete, one-half inch of gunite, or other non-combustible materials with equivalent fire protection characteristics.

§ 57.4161 Use of fire underground.

Fires shall not be lit underground, except for open-flame torches. Torches shall be attended at all times while lit.

FIREFIGHTING EQUIPMENT

§ 57.4200 General requirements.

(a) For fighting fires that could endanger persons, each mine shall have—

- (1) Onsite firefighting equipment for fighting fires in their early stages; and
- (2) Onsite firefighting equipment for fighting fires beyond their early stages, or the mine shall have made prior arrangements with a local fire department to fight such fires.

(b) This onsite firefighting equipment shall be—

- (1) Of the type, size, and quantity that can extinguish fires of any class which would occur as a result of the hazards present; and
- (2) Strategically located, readily accessible, plainly marked, and maintained in fire-ready condition.

[50 FR 4082, Jan. 29, 1985, as amended at 50 FR 20100, May 14, 1985]

§ 57.4201 Inspection.

(a) Firefighting equipment shall be inspected according to the following schedules:

- (1) Fire extinguishers shall be inspected visually at least once a month to determine that they are fully charged and operable.

(2) At least once every twelve months, maintenance checks shall be made of mechanical parts, the amount and condition of extinguishing agent and expellant, and the condition of the hose, nozzle, and vessel to determine that the fire extinguishers will operate effectively.

(3) Fire extinguishers shall be hydrostatically tested according to Table C-1 or a schedule based on the manufacturer's specifications to determine the integrity of extinguishing agent vessels.

(4) Water pipes, valves, outlets, hydrants, and hoses that are part of the mine's firefighting system shall be visually inspected at least once every three months for damage or deterioration and use-tested at least once every twelve months to determine that they remain functional.

(5) Fire suppression systems shall be inspected at least once every twelve months. An inspection schedule based on the manufacturer's specifications or the equivalent shall be established for individual components of a system and followed to determine that the system remains functional. Surface fire suppression systems are exempt from these inspection requirements if the systems are used solely for the protection of property and no persons would be affected by a fire.

(b) At the completion of each inspection or test required by this standard, the person making the inspection or test shall certify that the inspection or test has been made and the date on which it was made. Certifications of hydrostatic testing shall be retained until the fire extinguisher is retested or permanently removed from service. Other certifications shall be retained for one year.

TABLE C-1—HYDROSTATIC TEST INTERVALS FOR FIRE EXTINGUISHERS

Extinguisher type	Test interval (years)
Soda Acid	5
Cartridge-Operated Water and/or Antifreeze	5
Stored-Pressure Water and/or Antifreeze	5
Wetting Agent	5
Foam	5
AFFF (Aqueous Film Forming Foam)	5
Loaded Stream	5
Dry-Chemical with Stainless Steel Shells	5
Carbon Dioxide	5

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TABLE C-1—HYDROSTATIC TEST INTERVALS FOR FIRE EXTINGUISHERS—Continued

Extinguisher type	Test interval (years)
Dry-Chemical, Stored Pressure, with Mild Steel Shells, Brazed Brass Shells, or Aluminum Shells	12
Dry-Chemical, Cartridge or Cylinder Operated, with Mild Steel Shells	12
Bromotrifluoromethane-Halon 1301	12
Bromochlorodifluoromethane-Halon 1211	12
Dry-Powder, Cartridge or Cylinder-Operated, with Mild Steel Shells ¹	12

¹ Except for stainless steel and steel used for compressed gas cylinders, all other steel shells are defined as "mild steel" shells.

§ 57.4202 **Fire hydrants.**

If fire hydrants are part of the mine's firefighting system, the hydrants shall be provided with—

- (a) Uniform fittings or readily available adapters for onsite firefighting equipment;
- (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 compressed-air 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 suppression 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.