

§75.1101-9

(b) Two or more branch lines, at least one of which shall be above the top belt and one between the top and bottom belt, shall be installed in each sprinkler system to provide a uniform discharge of water to the belt surface.

(c) The water discharge rate from the sprinkler system shall not be less than 0.25 gallon per minute per square foot of the top surface of the top belt and the discharge shall be directed at both the upper and bottom surfaces of the top belt and to the upper surface of the bottom belt. The supply of water shall be adequate to provide a constant flow of water for 10 minutes with all sprinklers functioning.

(d) Each individual sprinkler shall be activated at a temperature of not less than 150 °F. and not more than 300 °F.

(e) Water systems shall include strainers with a flush-out connection and a manual shut-off valve.

§75.1101-9 Back-up water system.

One fire hose outlet together with a length of hose capable of extending to the belt drive shall be provided within 300 feet of each belt drive.

§75.1101-10 Water sprinkler systems; fire warning devices at belt drives.

Each water sprinkler system shall be equipped with a device designed to stop the belt drive in the event of a rise in temperature and each such warning device shall be capable of giving both an audible and visual warning when a fire occurs.

§75.1101-11 Inspection of water sprinkler systems.

Each water sprinkler system shall be examined weekly and a functional test of the complete system shall be conducted at least once each year.

§75.1101-12 Equivalent dry-pipe system.

Where water sprinkler systems are installed to protect main and secondary belt conveyor drives and freezing temperatures prevail, an equivalent dry-pipe system may be installed.

§75.1101-13 Dry powder chemical systems; general.

Self-contained dry powder chemical systems may be installed to protect

30 CFR Ch. I (7-1-06 Edition)

main and secondary belt conveyor drives, however, where such systems are employed, they shall be installed and maintained in accordance with the provisions of §§75.1101-14 through 75.1101-22.

§75.1101-14 Installation of dry powder chemical systems.

(a) Self-contained dry powder chemical systems shall be installed to protect each belt-drive, belt takeup, electrical-controls, gear reducing units and 50 feet of fire-resistant belt or 150 feet of non-fire-resistant belt adjacent to the belt drive.

(b) The fire-control components of each dry powder chemical system shall be a type approved by the Underwriters' Laboratories, Inc., or Factory Mutual Engineering Corp.

(c) The components of each dry powder chemical system shall be located so as to minimize the possibility of damage by roof fall or by the moving belt and its load.

§75.1101-15 Construction of dry powder chemical systems.

(a) Each self-contained dry powder system shall be equipped with hose or pipe lines which are no longer than necessary.

(b) Metal piping and/or hose between control valves and nozzles shall have a minimum bursting pressure of 500 p.s.i.g.

(c) Hose shall be protected by wire braid or its equivalent.

(d) Nozzles and reservoirs shall be sufficient in number to provide maximum protection to each belt, belt takeup, electrical controls, and gear reducing unit.

(e) Each belt shall be protected on the top surface of both the top and bottom belts and the bottom surface of the top belt.

§75.1101-16 Dry powder chemical systems; sensing and fire-suppression devices.

(a) Each self-contained dry powder chemical system shall be equipped with sensing devices which shall be designed to activate the fire-control system, sound an alarm and stop the conveyor drive motor in the event of a rise in temperature, and provision shall be

made to minimize contamination of the lens of any optical sensing device installed in such system.

(b) Where sensors are operated from the same power source as the belt drive, each sensor shall be equipped with a standby power source which shall be capable of remaining operative for at least 4 hours after a power cut-off.

(c) Sensor systems shall include a warning indicator (or test circuit) which shows it is operative.

(d) Each fire-suppression system shall be equipped with a manually operated control valve which shall be independent of the sensor.

§ 75.1101-17 Sealing of dry powder chemical systems.

Each dry powder chemical system shall be adequately sealed to protect all components of the system from moisture dust, and dirt.

§ 75.1101-18 Dry powder requirements.

Each dry powder chemical system shall contain the following minimum amounts of multipurpose dry powder:

Belt	Dry powder, pounds
Fire resistant	125
Non-fire resistant	250

§ 75.1101-19 Nozzles; flow rate and direction.

The nozzles of each dry powder chemical system shall be capable of discharging all powder within 1 minute after actuation of the system and such nozzles shall be directed so as to minimize the effect of ventilation upon fire control.

§ 75.1101-20 Safeguards for dry powder chemical systems.

Adequate guards shall be provided along all belt conveyors in the vicinity of each dry powder chemical system to protect persons whose vision is restricted by a discharge of powder from the system. In addition, hand-rails shall be installed in such areas to provide assistance to those passing along the conveyor after a powder discharge.

§ 75.1101-21 Back-up water system.

One fire hose outlet together with a length of hose capable of extending to the belt drive shall be provided within 300 feet of each belt drive.

§ 75.1101-22 Inspection of dry powder chemical systems.

(a) Each dry powder chemical system shall be examined weekly and a functional test of the complete system shall be conducted at least once each year.

(b) Where the dry powder chemical system has been actuated, all components of the system shall be cleaned immediately by flushing all powder from pipes and hoses and all hose damaged by fire shall be replaced.

§ 75.1102 Slippage and sequence switches.

[STATUTORY PROVISIONS]

Underground belt conveyors shall be equipped with slippage and sequence switches.

§ 75.1103 Automatic fire warning devices.

[STATUTORY PROVISIONS]

On or before May 29, 1970, devices shall be installed on all such belts which will give a warning automatically when a fire occurs on or near such belt. The Secretary shall prescribe a schedule for installing fire suppression devices on belt haulageways.

§ 75.1103-1 Automatic fire sensors.

A fire sensor system shall be installed on each underground belt conveyor. Sensors so installed shall be of a type which will (a) give warning automatically when a fire occurs on or near such belt; (b) provide both audible and visual signals that permit rapid location of the fire.

§ 75.1103-2 Automatic fire sensors; approved components; installation requirements.

(a) The components of each automatic fire sensor required to be installed in accordance with the provisions of § 75.1103-1 shall be of a type and installed in a manner approved by the Secretary, or the components shall be