§ 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 of a type listed, approved and installed in accordance with the recommendations of a nationally recognized testing laboratory approved by the Secretary.

(b) Where applicable, and not inconsistent with these regulations, automatic fire sensors shall be installed in accordance with the recommendations set forth in National Fire Code No. 72A “Local Protective Signaling Systems” (NFPA No. 72A–1967). National Fire Code No. 72A (1967) is hereby incorporated by reference and made a part hereof. National Fire Code No. 72A is available for examination at each MSHA Coal Mine Safety and Health district office, and may be obtained from the National Fire Protection Association, 11 Tracy Drive, Avon, MA 02322; Telephone: 800–344–3555 (toll free); http://www.nfpa.org.

§ 75.1103–3 Automatic fire sensor and warning device systems; minimum requirements; general.

Automatic fire sensor and warning device systems installed in belt haulageways of underground coal mines shall be assembled from components which meet the minimum requirements set forth in §§ 75.1103–4 through 75.1103–7 unless otherwise approved by the Secretary.

§ 75.1103–4 Automatic fire sensor and warning device systems; installation; minimum requirements.

(a) Effective December 31, 2009, automatic fire sensor and warning device systems that use carbon monoxide sensors shall provide identification of fire along all belt conveyors.

(1) Carbon monoxide sensors shall be installed at the following locations:
   (i) Not more than 100 feet downwind of each belt drive unit, each tailpiece transfer point, and each belt take-up. If the belt drive, tailpiece, and/or take-up for a single transfer point are installed together in the same air course, and the distance between the units is less than 100 feet, they may be monitored with one sensor downwind of the last component. If the distance between the units exceeds 100 feet, additional sensors are required downwind of each belt drive unit, each tailpiece transfer point, and each belt take-up;
   (ii) Not more than 100 feet downwind of each section loading point;
   (iii) Along the belt entry so that the spacing between sensors does not exceed 1,000 feet. Where air velocities are less than 50 feet per minute, spacing must not exceed 350 feet; and
   (iv) The mine operator shall indicate the locations of all carbon monoxide sensors on the mine maps required by §§ 75.1200 and 75.1505 of this part.

(2) Where used, sensors responding to radiation, smoke, gases, or other indications of fire, shall be spaced at regular intervals to provide protection equivalent to carbon monoxide sensors, and installed within the time specified in paragraph (a)(3) of this section.

(3) When the distance from the tailpiece at loading points to the first outby sensor reaches the spacing requirements in § 75.1103–4(a)(1)(iii), an additional sensor shall be installed and put in operation within 24 production shift hours. When sensors of the kind described in paragraph (a)(2) of this section are used, they shall be installed and put in operation within 24 production shift hours after the equivalent distance which has been established for the sensor from the tailpiece at loading points to the first outby sensor is first reached.

(b) Automatic fire sensor and warning device systems shall be installed so