

## § 7.409

that falls from the test specimen after the flame from the gas has been removed.

(8) Record the length of burned (charred) area of each test specimen measured longitudinally along the cable axis.

(9) Repeat the procedure for the remaining two specimens.

(b) *Acceptable performance.* Each of the three test specimens shall meet the following criteria:

(1) The duration of burning shall not exceed 60 seconds.

(2) The length of the burned (charred) area shall not exceed 6 inches.

### § 7.409 Approval marking.

Approved electric cables, signaling cables, and splices shall be legibly and permanently marked with the MSHA-assigned approval marking. For electric cables and signaling cables, the marking shall appear at intervals not exceeding 3 feet and shall include the MSHA-assigned approval number in addition to the number and size (gauge) of conductors and cable type. For cables containing electric conductors, the marking shall also include the voltage rating. For splices, the marking shall be placed on the jacket so that it will appear at least once on the assembled splice.

### § 7.410 Post-approval product audit.

Upon request by MSHA, but no more than once a year except for cause, the approval holder shall supply to MSHA for audit at no cost—

(a) 12 feet of an approved electric cable or approved signaling cable; or

(b) 3 splice kits of one approved splice kit design and 12 feet of MSHA-assigned cable that the splice kit is designed to repair.

### § 7.411 New technology.

MSHA may approve cable products or splice kits that incorporate technology for which the requirements of this subpart are not applicable if the Agency determines that they are as safe as those which meet the requirements of this subpart.

## 30 CFR Ch. I (7–1–14 Edition)

### Subpart L—Refuge Alternatives

SOURCE: 74 FR 80694, Dec. 31, 2008, unless otherwise noted.

#### § 7.501 Purpose and scope.

This subpart L establishes requirements for MSHA approval of refuge alternatives and components for use in underground coal mines. Refuge alternatives are intended to provide a life-sustaining environment for persons trapped underground when escape is impossible.

#### § 7.502 Definitions.

The following definitions apply in this subpart:

*Apparent temperature.* A measure of relative discomfort due to the combined effects of air movement, heat, and humidity on the human body.

*Breathable oxygen.* Oxygen that is at least 99 percent pure with no harmful contaminants.

*Flash fire.* A fire that rapidly spreads through a diffuse fuel, such as airborne coal dust or methane, without producing damaging pressure.

*Noncombustible material.* Material, such as concrete or steel, that will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat.

*Overpressure.* The highest pressure over the background atmospheric pressure that could result from an explosion, which includes the impact of the pressure wave on an object.

*Refuge alternative.* A protected, secure space with an isolated atmosphere and integrated components that create a life-sustaining environment for persons trapped in an underground coal mine.

#### § 7.503 Application requirements.

(a) An application for approval of a refuge alternative or component shall include:

(1) The refuge alternative's or component's make and model number, if applicable.

(2) A list of the refuge alternative's or component's parts that includes—

(i) The MSHA approval number for electric-powered equipment;

(ii) Each component's or part's in-mine shelf life, service life, and recommended replacement schedule;