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equivalent fire resistance. Stoppings constructed to phenolic foam blocks at least 12 inches thick need not be coated for fire resistance. All foam-type blocks used for stopping construction shall be solid.

(c) Exposed surfaces on the fresh air side of seals constructed of combustible materials shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance. Foam-type blocks shall not be used for seals.

### § 57.22219 Seals and stoppings (II-A mines).

- (a) Exposed surfaces on the intake side of stoppings constructed of combustible materials, except brattice, shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance.
- (b) Seals shall be of substantial construction. Exposed surfaces on the fresh air side of seals constructed of combustible materials shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance. Foam-type blocks shall not be used for seals.

## § 57.22220 Air passing unsealed areas (I-A, II-A, III, and V-A mines).

Air that has passed by or through unsealed abandoned or unsealed inactive areas and contains 0.25 percent or more methane shall—

- (a) Be coursed directly to a return airway:
- (b) Be tested daily for methane by a competent person; and
- (c) Not be used to ventilate work places.

# § 57.22221 Overcast and undercast construction (I-A, II-A, III, and V-A mines).

Overcasts and undercasts shall be—
(a) Of substantial construction;

- (b)(1) Constructed of noncombustible materials; or
- (2) Where constructed of combustible materials, the outside surfaces shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance;
  - (c) Kept clear of obstructions.

### § 57.22222 Ventilation materials (I-A, I-B, I-C, II-A, III, V-A, and V-B mines).

Brattice cloth and ventilation tubing shall be approved by MSHA in accordance with 30 CFR part 7, or shall bear a BC or VT acceptance number issued by the MSHA Approval and Certification Center.

[54 FR 30508, July 20, 1989]

#### § 57.22223 Crosscuts before abandonment (III mines).

A means of ventilating faces shall be provided before workings are abandoned in unsealed areas, unless crosscuts are provided within 30 feet of the face.

#### § 57.22224 Auxiliary equipment stations (I-A and III mines).

Battery charging stations, compressor stations, pump stations, and transformer stations shall be installed in intake air at locations which are sufficiently ventilated to prevent the accumulation of methane.

#### § 57.2225 Auxiliary equipment stations (I-C mines).

Battery charging stations, compressor stations, and electrical substations shall not be installed underground or within 50 feet of a mine opening.

#### § 57.22226 Testing for methane (IV mines).

Tests for methane shall be conducted in the mine atmosphere by a competent person—

- (a) At least once each shift prior to starting work in each face and raise; and
- (b) Upon initial release of gas into the mine atmosphere from boreholes.