

**§ 75.507 Power connection points.**

[STATUTORY PROVISIONS]

Except where permissible power connection units are used, all power-connection points outby the last open crosscut shall be in intake air.

**§ 75.507-1 Electric equipment other than power-connection points; outby the last open crosscut; return air; permissibility requirements.**

(a) All electric equipment, other than power-connection points, used in return air outby the last open crosscut in any coal mine shall be permissible except as provided in paragraphs (b) and (c) of this section.

(b) Notwithstanding the provisions of paragraph (a) of this section, in any coal mine where nonpermissible electric face equipment may be taken into or used inby the last open crosscut until March 30, 1974, such nonpermissible electric face equipment may be used in return air outby the last open crosscut.

(c) Notwithstanding the provisions of paragraph (a) of this section, in any coal mine where a permit for non-compliance is in effect, nonpermissible electric face equipment specified in such permit for noncompliance may be used in return air outby the last open crosscut for the duration of such permit.

[38 FR 4975, Feb. 23, 1973]

**§ 75.508 Map of electrical system.**

[STATUTORY PROVISIONS]

The location and the electrical rating of all stationary electric apparatus in connection with the mine electric system, including permanent cables, switchgear, rectifying substations, transformers, permanent pumps, and trolley wires and trolley feeder wires, and settings of all direct-current circuit breakers protecting underground trolley circuits, shall be shown on a mine map. Any changes made in a location, electric rating, or setting shall be promptly shown on the map when the change is made. Such map shall be available to an authorized representative of the Secretary and to the miners in such mine.

**§ 75.508-1 Mine tracks.**

When mine track is used as a conductor of a trolley system, the location of such track shall be shown on the map required by § 75.508, with a notation of the number of rails and the size of such track expressed in pounds per yard.

**§ 75.508-2 Changes in electric system map; recording.**

Changes made in the location, electrical rating or setting within the mine electrical system shall be recorded on the map of such system no later than the end of the next workday following completion of such changes.

**§ 75.509 Electric power circuit and electric equipment; deenergization.**

[STATUTORY PROVISIONS]

All power circuits and electric equipment shall be deenergized before work is done on such circuits and equipment, except when necessary for trouble shooting or testing.

**§ 75.510 Energized trolley wires; repair.**

[STATUTORY PROVISIONS]

Energized trolley wires may be repaired only by a person trained to perform electrical work and to maintain electrical equipment and the operator of a mine shall require that such person wear approved and tested insulated shoes and wireman's gloves.

**§ 75.510-1 Repair of energized trolley wires; training.**

The training referred to in § 75.510 must include training in the repair and maintenance of live trolley wires, and in the hazards involved in making such repairs, and in the limitations of protective clothing used to protect against such hazards.

**§ 75.511 Low-, medium-, or high-voltage distribution circuits and equipment; repair.**

[STATUTORY PROVISION]

No electrical work shall be performed on low-, medium-, or high-voltage distribution circuits or equipment, except by a qualified person or by a person

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trained to perform electrical work and to maintain electrical equipment under the direct supervision of a qualified person. Disconnecting devices shall be locked out and suitably tagged by the persons who perform such work, except that in cases where locking out is not possible, such devices shall be opened and suitably tagged by such persons. Locks or tags shall be removed only by the persons who installed them or, if such persons are unavailable, by persons authorized by the operator or his agent.

**§ 75.511-1 Qualified person.**

To be a qualified person within the meaning of § 75.511, an individual must meet the requirements of § 75.153.

**§ 75.512 Electric equipment; examination, testing and maintenance.**

[STATUTORY PROVISION]

All electric equipment shall be frequently examined, tested, and properly maintained by a qualified person to assure safe operating conditions. When a potentially dangerous condition is found on electric equipment, such equipment shall be removed from service until such condition is corrected. A record of such examinations shall be kept and made available to an authorized representative of the Secretary and to the miners in such mine.

[35 FR 17890, Nov. 20, 1970, as amended at 60 FR 33723, June 29, 1995]

**§ 75.512-1 Qualified person.**

To be a qualified person within the meaning of § 75.512, an individual must meet the requirements of § 75.153.

**§ 75.512-2 Frequency of examinations.**

The examinations and tests required by § 75.512 shall be made at least weekly. Permissible equipment shall be examined to see that it is in permissible condition.

**§ 75.513 Electric conductor; capacity and insulation.**

[STATUTORY PROVISION]

All electric conductors shall be sufficient in size and have adequate current carrying capacity and be of such construction that a rise in temperature re-

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sulting from normal operation will not damage the insulating materials.

**§ 75.513-1 Electric conductor; size.**

An electric conductor is not of sufficient size to have adequate carrying capacity if it is smaller than is provided for in the National Electric Code, 1968. In addition, equipment and trailing cables that are required to be permissible must meet the requirements of the appropriate schedules of the Bureau of Mines.

**§ 75.514 Electrical connections or splices; suitability.**

[STATUTORY PROVISION]

All electrical connections or splices in conductors shall be mechanically and electrically efficient, and suitable connectors shall be used. All electrical connections or splices in insulated wire shall be reinsulated at least to the same degree of protection as the remainder of the wire.

**§ 75.515 Cable fittings; suitability.**

[STATUTORY PROVISION]

Cables shall enter metal frames of motors, splice boxes, and electric compartments only through proper fittings. When insulated wires other than cables pass through metal frames, the holes shall be substantially bushed with insulated bushings.

**§ 75.516 Power wires; support.**

[STATUTORY PROVISION]

All power wires (except trailing cables on mobile equipment, specially designed cables conducting high-voltage power to underground rectifying equipment or transformers, or bare or insulated ground and return wires) shall be supported on well-insulated insulators and shall not contact combustible material, roof, or ribs.

**§ 75.516-1 Installed insulators.**

Well-insulated insulators is interpreted to mean well-installed insulators. Insulated J-hooks may be used to suspend insulated power cables