

## § 57.12039

### § 57.12039 Protection of surplus trailing cables.

Surplus trailing cables to shovels, cranes and similar equipment shall be—

- (a) Stored in cable boats;
- (b) Stored on reels mounted on the equipment; or
- (c) Otherwise protected from mechanical damage.

### § 57.12040 Installation of operating controls.

Operating controls shall be installed so that they can be operated without danger of contact with energized conductors.

### § 57.12041 Design of switches and starting boxes.

Switches and starting boxes shall be of safe design and capacity.

### § 57.12042 Track bonding.

Both rails shall be bonded or welded at every joint and rails shall be crossbonded at least every 200 feet if the track serves as the return trolley circuit. When rails are moved, replaced, or broken bonds are discovered, they shall be rebonded within three working shifts.

### § 57.12045 Overhead powerlines.

Overhead high-potential powerlines shall be installed as specified by the National Electrical Code.

### § 57.12047 Guy wires.

Guy wires of poles supporting high-voltage transmission lines shall meet the requirements for grounding or insulator protection of the National Electrical Safety Code, part 2, entitled "Safety Rules for the Installation and Maintenance of Electric Supply and Communication Lines" (also referred to as National Bureau of Standards Handbook 81, Nov. 1, 1961), and Supplement 2 thereof issued March 1968, which are hereby incorporated by reference and made a part hereof. These publications and documents may be obtained from the National Institute of Science and Technology, 100 Bureau Drive, Stop 3460, Gaithersburg, MD 20899-3460. Telephone: 301-975-6478 (not a toll free number); <http://ts.nist.gov/nvl>; or from the Government Printing Of-

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fice, Information Dissemination (Superintendent of Documents), P.O. Box 371954, Pittsburgh, PA 15250-7954; Telephone: 866-512-1800 (toll free) or 202-512-1800; <http://bookstore.gpo.gov>, or may be examined in any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration.

[53 FR 32526, Aug. 25, 1988, as amended at 60 FR 35695, July 11, 1995; 71 FR 16667, Apr. 3, 2006]

### § 57.12048 Communication conductors on power poles.

Telegraph, telephone, or signal wires shall not be installed on the same crossarm with power conductors. When carried on poles supporting powerlines, they shall be installed as specified by the National Electrical Code.

### § 57.12050 Installation of trolley wires.

Trolley wires shall be installed at least seven feet above rails where height permits, and aligned and supported to suitably control sway and sag.

### § 57.12053 Circuits powered from trolley wires.

Ground wires for lighting circuits powered from trolley wires shall be connected securely to the ground return circuit.

#### SURFACE ONLY

### § 57.12065 Short circuit and lightning protection.

Powerlines, including trolley wires, and telephone circuits shall be protected against short circuits and lightning.

### § 57.12066 Guarding trolley wires and bare powerlines.

Where metallic tools or equipment can come in contact with trolley wires or bare powerlines, the lines shall be guarded or deenergized.

### § 57.12067 Installation of transformers.

Transformers shall be totally enclosed, or shall be placed at least 8 feet above the ground, or installed in a transformer house, or surrounded by a substantial fence at least 6 feet high

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and at least 3 feet from any energized parts, casings, or wiring.

**§ 57.12068 Locking transformer enclosures.**

Transformer enclosures shall be kept locked against unauthorized entry.

**§ 57.12069 Lightning protection for telephone wires and ungrounded conductors.**

Each ungrounded conductor or telephone wire that leads underground and is directly exposed to lightning shall be equipped with suitable lightning arrestors of approved type within 100 feet of the point where the circuit enters the mine. Lightning arrestors shall be connected to a low resistance grounding medium on the surface and shall be separated from neutral grounds by a distance of not less than 25 feet.

**§ 57.12071 Movement or operation of equipment near high-voltage powerlines.**

When equipment must be moved or operated near energized high-voltage powerlines (other than trolley lines) and the clearance is less than 10 feet, the lines shall be deenergized or other precautionary measures shall be taken.

**UNDERGROUND ONLY**

**§ 57.12080 Bare conductor guards.**

Trolley wires and bare power conductors shall be guarded at mantrip loading and unloading points, and at shaft stations. Where such trolley wires and bare power conductors are less than 7 feet above the rail, they shall be guarded at all points where persons work or pass regularly beneath.

**§ 57.12081 Bonding metal pipelines to ground return circuits.**

All metal pipelines, 1,000 feet or more in length running parallel to trolley tracks, that are used as a ground return circuit shall be bonded to the return circuit rail at the ends of the pipeline and at intervals not to exceed 500 feet.

**§ 57.12082 Isolation of powerlines.**

Powerlines shall be well separated or insulated from waterlines, telephone lines and air lines.

**§ 57.12083 Support of power cables in shafts and boreholes.**

Power cables in shafts and boreholes shall be fastened securely in such a manner as to prevent undue strain on the sheath, insulation, or conductors.

**§ 57.12084 Branch circuit disconnecting devices.**

Disconnecting switches that can be opened safely under load shall be provided underground at all branch circuits extending from primary power circuits near shafts, adits, levels and boreholes.

**§ 57.12085 Transformer stations.**

Transformer stations shall be enclosed to prevent persons from unintentionally or inadvertently contacting energized parts.

**§ 57.12086 Location of trolley wire.**

Trolley and trolley feeder wire shall be installed opposite the clearance side of haulageways. However, this standard does not apply where physical limitations would prevent the safe installation or use of such trolley and trolley feeder wire.

**§ 57.12088 Splicing trailing cables.**

No splice, except a vulcanized splice or its equivalent, shall be made in a trailing cable within 25 feet of the machine unless the machine is equipped with a cable reel or other power feed cable payout-retrieval system. However, a temporary splice may be made to move the equipment for repair.

**Subpart L—Compressed Air and Boilers**

**§ 57.13001 General requirements for boilers and pressure vessels.**

All boilers and pressure vessels shall be constructed, installed, and maintained in accordance with the standards and specifications of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code.

**§ 57.13010 Reciprocating-type air compressors.**

(a) Reciprocating-type air compressors rated over 10 horsepower shall be equipped with automatic temperature-