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

## §57.12068 Locking transformer enclo-

 sures.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.

## $\S 57.12071$ 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 dis-

 connecting 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-

