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§ 77.807–2 Booms and masts; minimum distance from high-voltage lines.

The booms and masts of equipment operated on the surface of any coal mine shall not be operated within 10 feet of an energized overhead powerline. Where the voltage of overhead powerlines is 69,000 volts, or more, the minimum distance from the boom or mast shall be as follows:

Nominal power line voltage (in 1,000 volts)	Minimum distance (feet)
69 to 114	12
115 to 229	15
230 to 344	20
345 to 499	25
500 or more	35

§ 77.807–3 Movement of equipment; minimum distance from high-voltage lines.

When any part of any equipment operated on the surface of any coal mine is required to pass under or by any energized high-voltage powerline and the clearance between such equipment and powerline is less than that specified in § 77.807–2 for booms and masts, such powerlines shall be deenergized or other precautions shall be taken.

§ 77.808 Disconnecting devices.

Disconnecting devices shall be installed at the beginning of each branch line in high-voltage circuits and they shall be equipped or designed in such a manner that it can be determined by visual observation that the circuit is deenergized when such devices are open.

§ 77.809 Identification of circuit breakers and disconnecting switches.

Circuit breakers and disconnecting switches shall be labeled to show which units they control, unless identification can be made readily by location.

§ 77.810 High-voltage equipment; grounding.

Frames, supporting structures, and enclosures of stationary, portable, or mobile high-voltage equipment shall be effectively grounded.

§ 77.811 Movement of portable substations and transformers.

Portable substations and transformers shall be deenergized before they are moved from one location to another.

Subpart J—Low- and Medium-Voltage Alternating Current Circuits

§ 77.900 Low- and medium-voltage circuits serving portable or mobile three-phase alternating current equipment; circuit breakers.

Low- and medium-voltage circuits supplying power to portable or mobile three-phase alternating current equipment shall be protected by suitable circuit breakers of adequate interrupting capacity which are properly tested and maintained and equipped with devices to provide protection against undervoltage, grounded phase, short circuit, and over-current.

§ 77.900–1 Testing, examination, and maintenance of circuit breakers; procedures.

Circuit breakers protecting low- and medium-voltage circuits serving portable or mobile three-phase alternating current equipment and their auxiliary devices shall be tested and examined at least once each month by a person qualified as provided in § 77.103. In performing such tests, the circuit breaker auxiliaries or control circuits shall be actuated in any manner which causes the circuit breaker to open. All components of the circuit breaker and its auxiliary devices shall be visually examined and such repairs or adjustments as are indicated by such tests and examinations shall be carried out immediately.

§ 77.900–2 Testing, examination, and maintenance of circuit breakers; record.

The operator shall maintain a written record of each test, examination, repair or adjustment of all circuit breakers protecting low- and medium-voltage circuits serving three-phase alternating current equipment and such record shall be kept in a book approved by the Secretary.