§ 75.819 Other personal protective equipment capable of providing protection against shock hazard must be used to prevent direct contact with the cable.

(b) High-voltage insulated gloves, sleeves, and other insulated personal protective equipment must—

1. Have a voltage rating of at least Class 1 (7,500 volts) that meets or exceeds ASTM F496–97, “Standard Specification for In-Service Care of Insulating Gloves and Sleeves” (1997).

2. Be examined before each use for visible signs of damage;

3. Be removed from the underground area of the mine or destroyed when damaged or defective; and

4. Be electrically tested every 6 months in accordance with publication ASTM F496–97 (Standard Specification for In-Service Care of Insulating Gloves and Sleeves, 1997) is incorporated by reference and may be inspected at any MSHA Coal Mine Safety and Health district office, or at MSHA’s Office of Standards, Regulations, and Variances, 1100 Wilson Blvd., Room 2352, Arlington, Virginia 22209–3939, and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. In addition, copies of the document can be purchased from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428–2959. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.


§ 75.820 Electrical work; troubleshooting and testing.

(a) Electrical work on all circuits and equipment associated with high-voltage longwalls must be performed only by persons qualified under §75.153 to perform electrical work on all circuits and equipment.

(b) Prior to performing electrical work, except for troubleshooting and testing of energized circuits and equipment as provided for in paragraph (d) of this section, a qualified person must do the following:

1. Deenergize the circuit or equipment with a circuit-interrupting device.

2. Open the circuit disconnecting device. On high-voltage circuits, ground the power conductors until work on the circuit is completed.

3. Lock out the disconnecting device with a padlock. When more than one qualified person is performing work, each person must install an individual padlock.

4. Tag the disconnecting device to identify each person working and the circuit or equipment on which work is being performed.

(c) Each padlock and tag must be removed only by the person who installed them, except that, if that person is unavailable at the mine, the lock and tag may be removed by a person authorized by the operator, provided—

1. The authorized person is qualified under paragraph (a) of this section; and

2. The operator ensures that the person who installed the lock and tag is aware of the removal before that person resumes work on the affected circuit or equipment.

(d) Troubleshooting and testing of energized circuits must be performed only—

1. On low- and medium-voltage circuits;

2. When the purpose of troubleshooting and testing is to determine voltages and currents; and

3. By persons qualified to perform electrical work and who wear protective gloves on circuits that exceed 40 volts in accordance with the following table:

Compartment separation and cover interlock switches for motor-starter enclosures must be maintained in accordance with the approval requirements of paragraphs (a) and (b) of §18.53 of part 18 of this chapter.
Mine Safety and Health Admin., Labor § 75.824

<table>
<thead>
<tr>
<th>Circuit voltage</th>
<th>Type of glove required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 120 volts (nominal) (not intrinsically safe)</td>
<td>Rubber insulating gloves with leather protectors.</td>
</tr>
<tr>
<td>40 volts to 120 volts (nominal) (both intrinsically safe and non-intrinsically safe).</td>
<td>Either rubber insulating gloves with leather protectors or dry work gloves.</td>
</tr>
<tr>
<td>Greater than 120 volts (nominal) (intrinsically safe)</td>
<td>Either rubber insulating gloves with leather protectors or dry work gloves.</td>
</tr>
</tbody>
</table>

(4) Rubber insulating gloves must be rated at least for the nominal voltage of the circuit when the voltage of the circuit exceeds 120 volts nominal and is not intrinsically safe.

(c) When examinations or tests of equipment reveal a fire, electrical shock, ignition, or operational hazard, the equipment must be removed from service immediately or repaired immediately.

(d) At the completion of examinations and tests required by this section, the person who makes the examinations and tests must certify by signature and date that they have been conducted. A record must be made of any unsafe condition found and any corrective action taken. Certifications and records must be kept for at least one year and must be made available for inspection by authorized representatives of the Secretary and representatives of miners.

§ 75.822 Underground high-voltage longwall cables.

In addition to the high-voltage cable design specifications in § 75.804 of this part, high-voltage cables for use on longwalls may be a type SHD cable with a center ground-check conductor no smaller than a No. 16 AWG stranded conductor. The cables must be MSHA accepted as flame-resistant under part 18 or approved under subpart K of part 7.

§ 75.823 Scope.

Sections 75.823 through 75.831 of this part are electrical safety standards applicable to 2,400 volt continuous mining machines and circuits. A “qualified person” as used in these sections means a person meeting the requirements of § 75.153. Other standards in 30 CFR apply to these circuits and equipment where appropriate.

§ 75.824 Electrical protection.

(a) Trailing cable protection. The trailing cable extending to the high-voltage continuous mining machine must be