



OSHA's 50 Volt Requirement

In 29CFR1910.269:

- (b) Medical services and first aid. The employer shall provide medical services and first aid as required in ∂ 1910.151 of this Part. In addition to the requirements of ∂ 1910.151 of this Part, the following requirements also apply:
 - (1) Cardiopulmonary resuscitation and first aid training. When employees are performing work on or associated with exposed lines or equipment energized at 50 volts or more, persons trained in first aid including cardiopulmonary resuscitation (CPR) shall be available as follows:
 - (1) (7) Fuse handling. When fuses must be installed or removed with one or both terminals energized at more than 300 volts or with exposed parts energized at more than 50 volts, the employer shall ensure that tools or gloves rated for the voltage are used. When expulsion-type fuses are installed with one or both terminals energized at more than 300 volts, the employer shall ensure that each employee wears eye protection meeting the requirements of Subpart I of this Part, uses a tool rated for the voltage, and is clear of the exhaust path of the fuse barrel.

In subpart S:

¶ 1910.332 Training.

- (a) Scope. The training requirements contained in this section apply to employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements of $\partial\partial$ 1910.303 through 1910.308.
 - Note: Employees in occupations listed in Table S-4 face such a risk and are required to be trained. Other employees who also may reasonably be expected to face a comparable risk of injury due to electric shock or other electrical hazards must also be trained.
- (b) Content of training.
 - (1) Practices addressed in this standard. Employees shall be trained in and familiar with the safety-related work practices required by $\partial\partial$ 1910.331 through 1910.335 that pertain to their respective job assignments.
 - (2) Additional requirements for unqualified persons. Employees who are covered by paragraph (a) of this section but who are not qualified persons shall also be trained in and familiar with any electrically related safety practices not specifically addressed by $\partial\partial$ 1910.331 through 1910.335 but which are necessary for their safety.

- (3) Additional requirements for qualified persons. Qualified persons (i.e., those permitted to work on or near exposed energized parts) shall, at a minimum, be trained in and familiar with the following:
- (i) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment,
 - (ii) The skills and techniques necessary to determine the nominal voltage of exposed live parts, and
 - (iii) The clearance distances specified in 1910.333(c) and the corresponding voltages to which the qualified person will be exposed.

Note 1: For the purposes of 1910.331 through 1910.335, a person must have the training required by paragraph (b)(3) of this section in order to be considered a qualified person.

Note 2: Qualified persons whose work on energized equipment involves either direct contact or contact by means of tools or materials must also have the training needed to meet 1910.333(c)(2).

- (c) Type of training. The training required by this section shall be of the classroom or on-the-job type. The degree of training provided shall be determined by the risk to the employee.

Table S-4. -- Typical Occupational Categories of Employees Facing a Higher Than Normal Risk of Electrical Accident

Occupation	
Blue collar supervisors.	n1
Electrical and electronic engineers.	n1
Electrical and electronic equipment assemblers.	n1
Electrical and electronic technicians.	n1
Electricians.	
Industrial machine operators.	n1
Material handling equipment operators.	n1
Mechanics and repairers.	n1
Painters.	n1
Riggers and roustabouts.	n1
Stationary engineers.	n1
Welders.	

n1 Workers in these groups do not need to be trained if their work or the work of those they supervise does not bring them or the employees they supervise close enough to exposed parts of electric circuits operating at 50 volts or more to ground for a hazard to exist.

In the NEC:

110-27. Guarding of Live Parts

- (a) Live Parts Guarded Against Accidental Contact. Except as elsewhere required or permitted by this Code, live parts of electric equipment operating at 50 volts or more shall be guarded against accidental contact by approved enclosures or by any of the following means.