

## **§ 57.12020**

### **§ 57.12020 Protection of persons at switchgear.**

Dry wooden platforms, insulating mats, or other electrically-nonconductive material shall be kept in place at all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand and which are kept at the same potential as the grounded, metal, non-current-carrying parts of the power switches to be operated may be used.

### **§ 57.12021 Danger signs.**

Suitable danger signs shall be posted at all major electrical installations.

### **§ 57.12022 Authorized persons at major electrical installations.**

Areas containing major electrical installations shall be entered only by authorized persons.

### **§ 57.12023 Guarding electrical connections and resistor grids.**

Electrical connections and resistor grids that are difficult or impractical to insulate shall be guarded, unless protection is provided by location.

### **§ 57.12025 Grounding circuit enclosures.**

All metal enclosing or encasing electrical circuits shall be grounded or provided with equivalent protection. This requirement does not apply to battery-operated equipment.

### **§ 57.12026 Grounding transformer and switchgear enclosures.**

Metal fencing and metal buildings enclosing transformers and switchgear shall be grounded.

### **§ 57.12027 Grounding mobile equipment.**

Frame grounding or equivalent protection shall be provided for mobile equipment powered through trailing cables.

### **§ 57.12028 Testing grounding systems.**

Continuity and resistance of grounding systems shall be tested immediately after installation, repair, and modification; and annually thereafter. A record of the resistance measured during the most recent test shall be

## **30 CFR Ch. I (7–1–14 Edition)**

made available on a request by the Secretary or his duly authorized representative.

### **§ 57.12030 Correction of dangerous conditions.**

When a potentially dangerous condition is found it shall be corrected before equipment or wiring is energized.

### **§ 57.12032 Inspection and cover plates.**

Inspection and cover plates on electrical equipment and junction boxes shall be kept in place at all times except during testing or repairs.

### **§ 57.12033 Hand-held electric tools.**

Hand-held electric tools shall not be operated at high potential voltages.

### **§ 57.12034 Guarding around lights.**

Portable extension lights, and other lights that by their location present a shock or burn hazard, shall be guarded.

### **§ 57.12035 Weatherproof lamp sockets.**

Lamp sockets shall be of a weatherproof type where they are exposed to weather or wet conditions that may interfere with illumination or create a shock hazard.

### **§ 57.12036 Fuse removal or replacement.**

Fuses shall not be removed or replaced by hand in an energized circuit, and they shall not otherwise be removed or replaced in an energized circuit unless equipment and techniques especially designed to prevent electrical shock are provided and used for such purpose.

### **§ 57.12037 Fuses in high-potential circuits.**

Fuse tongs or hotline tools, shall be used when fuses are removed or replaced in high-potential circuits.

### **§ 57.12038 Attachment of trailing cables.**

Trailing cables shall be attached to machines in a suitable manner to protect the cable from damage and to prevent strain on the electrical connections.