



**Independent Electrical
Contractors**



OSHA Standard Changes

OSHA 29 CFR 1910 Electrical Standard Subpart S Fact Sheet:

OSHA General Industry Standard 29 CFR 1910, Subpart S was updated in 2007 to improve safety and add consistency between OSHA requirements and recent versions of the National Fire Protection Association's (NFPA) Standard for Electrical Safety in the Workplace and National Electrical Code provisions.

The list below provides a brief overview of the updated OSHA electrical standard. This summary is for the review and assistance of IEC members. The actual regulation should be studied and applied in the work place. See link below for latest standard.

http://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1910

The new standard covers 29 CFR 1910.302 through 29 CFR 1910.308 of Subpart S and applies to electrical installations, utilization equipment, used and installed in workplaces in general industry.

1. The 2002 edition of the National Electrical Code is referenced in the update; previously the 1971 edition was referenced. The new standard also draws from the 2000 edition of NFPA 70E, Standard for Electrical Safety in the Workplace.
2. The new standard exempts older installations from meeting some of the provisions of the Design Safety Standards for Electrical Systems (that is, §§1910.302 through and including 1910.308). The extent to which the installation standard applies depends on the date the installation was made. Older installations must meet fewer requirements than newer ones. Paragraph (b) of §1910.302 contains the provisions for grandfathering of older installations. Most of the new provisions contained in the final rule only apply prospectively to installations made after August 13, 2007.
3. The final rule clarifies that the provision in the lock out-tag out standard for energy isolating devices to be lockable is in addition to any requirements in Subpart S for disconnecting means to be capable of being locked open. 29 CFR 1910.302(c).
4. OSHA is requiring ground-fault circuit-interrupter (GFCI) protection for all receptacle outlets on temporary wiring installations that are used during maintenance, remodeling, or repair of buildings, structures, or equipment, or during similar construction-like activities. Construction-like activities include cleanup, disaster remediation, and

restoration of large electrical installations. 29 CFR 1910.304(b)(3)(ii). Although this is similar to GFCI protection required for construction sites (29 CFR 1926.404(b)(1)), it better protects employees from ground-fault hazards because it covers other equipment that is just as subject to damage and likely to cause electrocution as 120-volt, single-phase, 15- and 20-ampere equipment.

5. GFCI devices are OSHA's preferred means for employee protection from electrocution hazards. Where approved GFCIs are not available for the voltage and current rating required, the final rule does permit, as an alternative to GFCI protection, an assured equipment grounding conductor (AEGC) program. 29 CFR 1910.304(b)(3)(ii)(C).
6. The final rule requires the equipment grounding conductor to be *effective* as well as permanent and continuous. 29 CFR 1910.304(g)(5).
7. The final rule allows using the grounded structural metal frame of a building as the equipment grounding conductor for existing installations.
8. The final rule adds "construction-like activities" to the list of permitted uses for temporary wiring over 600 volts. 29 CFR 1910.305(a)(2)(iii).
9. The final rule exempts integrated electrical systems from the requirement for disconnecting means for data processing installations. 29 CFR 1910.306(e).

Zone Classification

10. The zone classification system incorporated in the final rule is an alternative method to the division classification system for installations of electric equipment in Class I hazardous locations. 29 CFR 1910.307. 11. It was first recognized in the NEC in the 1996 edition.
12. The classification of areas and the selection of equipment and wiring must be under the supervision of a qualified registered professional engineer. 29 CFR 1910.307(g)(4).

Documentation

13. The final rule requires employers to document the designation of hazardous locations within their facilities. 29 CFR 1910.307(b).
 - Installations classified by divisions are grandfathered.
 - Installations classified by zones are not.

Carnivals, Circuses, Fairs, and Similar Events

14. The final rule includes requirements intended to help prevent accidents at these events (29 CFR 1910.306(k)), including:
 - Protection of wiring from damage
 - Provisions on portable distribution and termination boxes

The Updated Version of Subpart S Does Not Apply to:

- a.) Installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles.
- b.) Installations underground in mines.

- c.) Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes.
- d.) Installations of some communication equipment.
- e.) Installations under the exclusive control of electric utilities for the purpose of communication or metering; or for the generation, control, transformation, transmission, and distribution of electric energy. These exempted installations must be located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

Through the OSHA and Independent Electrical Contractors (IEC) Alliance, IEC developed this fact sheet for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. Sep. 2007; updated Dec. 2010