



## OSHA Revises its Electrical Installation Standard

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### PURPOSE

This Advisory is being issued to alert Department of Energy (DOE) personnel to the recent Federal Register announcing the revised Occupational Safety and Health Administration (OSHA) Electrical Installation Standard. On February 14, 2007, OSHA announced that the final rule on Subpart S – *Electrical* (29 CFR §§ 1910.302 to 1910.308) had been published in the Federal Register and will become effective August 13, 2007. The revised Standard applies to DOE contractors pursuant to Title 10, Code of Federal Regulations (CFR) 851, *Worker Safety and Health Program*.

### BACKGROUND

OSHA revised Subpart S to reflect updated industry practices and technology and to incorporate the 2000 edition of National Fire Protection Association (NFPA) 70E, *Electrical Safety Requirements for Employee Workplaces*, and the 2002 revision of the National Electrical Code (NEC). The revised Subpart S is based on Part I of the 2000 edition of NFPA 70E. OSHA will update Subpart S to reflect the 2004 edition of NFPA 70E in its next revision. *Please note that compliance with both Subpart S and the more stringent requirements of the 2004 edition of NFPA 70E (Standard for Electrical Safety in the Workplace) is required by 10 CFR 851.*

### SUMMARY

Changes to OSHA's general industry electrical installation standard focus on safety in the design and installation of electric equipment in the workplace. Some of the most significant revisions are as follows:

- The requirement for using ground-fault circuit interrupters (GFCIs) has been expanded in lieu of assured equipment grounding programs.
- Grounding contacts on receptacles must be effectively grounded. Receptacles installed on 15- and 20-ampere circuits must be of the grounding type and installed in circuits within their rating [with limited exceptions listed in 1910.304(b)(2)(iv)].

- Temporary wiring for demolition is no longer addressed under Subpart S. Demolition is a form of construction work covered under 29 CFR 1926.
- The revised final rule exempts older electrical installations from meeting certain provisions of the *Design Safety Standards for Electrical System* (§§ 1910.302 through 1910.308).
- The minimum height of the working space for new installations increased from 6¼ feet to 6½ feet.
- A grounded cold-water pipe can be used as the equipment grounding conductor on branch circuit extensions only in existing installations. Such equipment grounding connections must be replaced whenever work is performed on the branch circuit.
- Disconnecting means required by Subpart S must be capable of accepting a lock. This new requirement is consistent with the provisions of § 1910.147(c)(2)(iii), which requires energy-isolating devices to be designed to accept a lockout device.
- Completed wiring must be free from short circuits and grounds (other than those required in the Standard).
- Grounding is now required for electrically operated hoist frames and tracks.
- Cord-and-plug connected equipment that must be grounded now includes stationary and fixed motor-operated tools and light industrial motor-operated tools.

### ADDITIONAL SOURCES OF INFORMATION

- <http://www.hss.energy.gov/HealthSafety/WSHP/rule851/851final.html>
- [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=FEDERAL\\_REGISTER&p\\_id=19269](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=19269)

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