

OSHA Rule Expands Requirements for GFCI Use

Are you compliant?

An important change in OSHA Regulations in 2007 has broadened the requirements for using portable GFCI's in most industries.



Overview

Mandatory use of portable Ground Fault Circuit Interrupters (GFCI's) began in the 1970's not long after the Occupational Safety and Health Administration (OSHA) was formed by an Act of Congress. The first requirements for GFCI use resulted from an OSHA mandate applying to **Construction Industry** businesses. The mandate required the use of GFCI's whenever "temporary power" was used on the jobsite. The resulting use of GFCI's in construction work has saved many workers' lives in the intervening years since the mandate was issued.

Capitalizing on the **Construction Industry** safety benefits realized, new regulations which went into effect in August, 2007 extended GFCI-use requirements for the first time to OSHA's **General Industry** category of businesses which cover most of the rest of U.S. industry with the exception of agriculture, mining and maritime. Now, in order to comply with OSHA Regulations, a great deal of maintenance, remodeling or repair activities, involving buildings, structures or equipment must be done with workers using GFCI protected equipment.

The new activities for which OSHA has mandated the use of GFCI's cover a large segment of industrial functions having "construction-like" characteristics such as are found in MRO, facilities engineering and disaster preparedness and recovery disciplines. Industries covered include product and materials manufacturing, automotive manufacturing, breweries and bottling plants, chemical and petrochemical processing, food processing and many others.

Previously, most portable GFCI extension cords, quad boxes and other ground fault protection equipment have been bought by construction and electrical contractors. Distributors will now find many new opportunities for GFCI sales with their industrial customers.



Background

OSHA's scope of regulation covers three major business areas; the **Construction Industry**, the **Maritime Industry** and a third category, **General Industry**, which covers most other business enterprises except for those in mining and agriculture which are overseen by other government agencies. OSHA's regulations are Federal Law and are contained in the U.S. Government's Code of Federal Regulations (CFR). Violations of OSHA regulations can subject companies to legal action and fines.

Prior to the most recent update, OSHA's **General Industry** electrical regulations (29CFR1910, Subpart S) were last updated in August 1990 and were based on Part I of the National Fire Protection Association's NFPA 70E Standard entitled **Electrical Safety Requirements for Employee Workplaces** (1988 Edition). OSHA's **Construction Industry** electrical regulations (29CFR1926, Subpart K) were last updated in 1986. NFPA 70E provides practical application to OSHA requirements. Numerous enhancements in technology have occurred since these regulations were last revised.

In an effort to bring its regulations up to date, OSHA published new **General Industry** regulations in 2007 based on Part I of the 2000 Edition of NFPA 70E. In doing so, and in response to requests from industry stakeholders, OSHA has provided **General Industry** companies with new rules that reflect more current versions of NFPA 70E and the National Electrical Code (NEC). In fact, until they are updated in the future, the **General Industry** rules regarding GFCIs are now more up-to-date than those for the **Construction Industry**.



Regulations

Set forth below are the actual citations from OSHA's *General Industry* regulations that were issued in 2007. Keep in mind that prior to the issuance of these new regulations, OSHA did not require the use of GFCIs for construction-like work performed by *General Industry* companies.

From 29CFR1910, Subpart S, Article 1910.304(b)(3)

Ground-fault circuit interrupter protection for personnel.

1910.304(b)(3)(i)

All 125 Volt, single-phase, 15 and 20 Ampere receptacles installed in bathrooms or on rooftops shall have ground fault circuit interrupter protection for personnel.

1910.304(b)(3)(ii)

The following requirements apply to temporary wiring installations that are used during construction-like activities, including certain maintenance, remodeling, or repair activities involving buildings, structures or equipment.

1910.304(b)(3)(ii)(A)

All 125 Volt, single-phase, 15, 20, and 30 Ampere receptacle outlets that are not part of the permanent wiring of the building or structure and that are in use by personnel shall have ground fault circuit interrupter protection for personnel.

Note 1 to paragraph (b)(3)(ii)(A) of this section: A cord connector on an extension cord set is considered to be a receptacle outlet if the cord set is used for temporary electric power.

Note 2 to paragraph (b)(3)(ii)(A) of this section: Cord sets and devices incorporating the required ground fault circuit interrupter that are connected to the receptacle closest to the source of power are acceptable forms of protection.

1910.304(b)(3)(ii)(B)

Receptacles other than 125 Volt, single-phase, 15, 20, and 30 Ampere receptacles that are not part of the permanent wiring of the building or structure and that are in use by personnel shall have ground fault circuit interrupter protection for personnel.

1910.304(b)(3)(ii)(C)

Where the ground fault circuit interrupter protection required by paragraph (b)(3)(ii)(B) of this section is not available for receptacles other than 125 Volt, single-phase, 15, 20, and 30 Ampere, the employer shall establish and implement an assured equipment grounding conductor program covering cord sets, receptacles that are not a part of the building or structure, and equipment connected by cord and plug that are available for use or used by employees on those receptacles.

Note:

The second and third articles highlighted above in red pertain directly to the subject of this bulletin. The first article is a general requirement and the last two articles pertain to a significant expansion of GFCI requirements for applications at voltages greater than 125V and 30A.

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