NFPA® 790

Standard for Competency of Third-Party Field Evaluation Bodies

2012 Edition

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NFPA® 790

Standard for

Competency of Third-Party Field Evaluation Bodies

2012 Edition

This edition of NFPA 790, *Standard for Competency of Third-Party Field Evaluation Bodies*, was prepared by the Technical Committee on Electrical Equipment Evaluation (EEE-AAA) and released by the Technical Correlating Committee on National Electrical Code® (NEC-AAC). It was issued by the Standards Council on May 31, 2011, with an effective date of June 20, 2011.

This edition of NFPA 790 was approved as an American National Standard on June 20, 2011.

Origin and Development of NFPA 790

The Technical Committee on Electrical Equipment Evaluation was organized in 2008 by NFPA in recognition of the need for requirements for the qualifications and competency of third parties performing field evaluations on electrical products and assemblies and to guide the process for field evaluations.

One means to demonstrate conformance of products to an applicable product safety standard is through certification. Historically, certification was accomplished through a laboratory investigation of a prototype or initial sample to determine compliance with the standard, with a system of ongoing follow-up inspections conducted to continue certification. The result was a "Certification," "Listing," "Recognition," or "Classification" of the product as defined by various standards, including NFPA 70, *National Electrical Code®*. These processes were formalized in several international standards, including ISO/IEC Guide 65, *General Requirements for Bodies Operating Product Certification Systems*, and ISO/IEC Standard 17020, *General Criteria for the Operation of Various Types of Bodies Performing Inspection*.

As the marketplace evolved, more and more products needed to be evaluated differently from the above system because they were already installed at the installation site. Another condition that did not fit the normal process and required some other process of evaluation was that some products needed to be evaluated but were not produced in quantities that fit the traditional certification model economically. The alternative process to meet the needs for evaluation of unique, modified, or other equipment beyond the manufacturing process became known as a "field evaluation." The process used for field evaluations, by the nature of the work, is a blend of ISO/IEC Guide 65 and ISO/IEC Standard 17020.

In 2008, a task group identified the need to create two documents covering the performance of field evaluations of electrical equipment and used the following document as the basis for development: *Recommended Competency Guidelines for Third Party Field Evaluation Bodies*, which was developed by the American Council for Electrical Safety (ACES), a division of the American Council of Independent Laboratories (ACIL) (first edition, November 17, 2005).

The ACES document provided guidelines regarding the competency of firms that perform field evaluations. NFPA 790 and its companion document, NFPA 791, *Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation*, provide their users with the ability to qualify who can complete field evaluations and how field evaluations specifically for electrical products are to be completed.

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Committee Scope: This Committee shall have primary responsibility for documents on minimizing the risk of electricity as a source of electric shock and as a potential ignition source of fires and explosions. It shall also be responsible for text to minimize the propagation of fire and explosions due to electrical installations.

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Committee Scope: This committee shall have primary responsibility for documents covering the performance of field evaluations of electrical equipment. This committee shall also have primary responsibility for documents on the competency of companies and individuals within those companies conducting field evaluations. This committee shall have primary jurisdiction, but shall report to the Association through the National Electrical Code Technical Correlating Committee.

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A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex D. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex D.

Chapter 1 Administration

1.1 Scope.

1.1.1 Establishing Competence.

1.1.1.1 The provisions of this standard shall address requirements for the qualification and competency of a body performing field evaluations on electrical products and assemblies with electrical components.

1.1.1.2 These requirements are based on ISO/IEC Guide 65 and ISO/IEC 17020 with adaptation for the unique characteristics of field evaluations.

1.1.2 Competent FEBs.

1.1.2.1 A field evaluation body (FEB) meeting the requirements of this standard shall be considered competent to perform field evaluations.

1.1.2.2 These requirements shall apply to both the initial and the continued competency of FEBs.

1.2 Purpose. This standard shall provide the requirements for the competency of an FEB and for the recognition of an FEB by an authority having jurisdiction or other recognition body.

1.3 Application. This standard shall be used by FEBs as the basis to seek recognition by an authority having jurisdiction or other recognition body in the application of evaluating the conformance of electrical equipment to the companion document.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. (Reserved)

2.3 Other Publications.

2.3.1 IEC Publications. International Electrotechnical Commission, 3, rue de Varembé, P.O. Box 131, CH-1211 Geneva 20, Switzerland. IEC documents are available through ANSI.

ISO/IEC Guide 65, *General Requirements for Bodies Operating Product Certification Systems,* 1996.

ISO/IEC Standard 17020, *General Criteria for the Operation of Various Types of Bodies Performing Inspection*, 1998.

2.3.2 Other Publication. *Merriam-Webster's Collegiate Dictionary*, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 70®, *National Electrical Code®*, 2011 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary,* 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

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