



Changes & Additions to C57.12.00 and C57.12.90 in the 2015 Revisions

-- Technical Presentation --
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by Stephen Antosz and Steven Snyder

1. Abstract

The presentation will cover three main topics:

1. Overview of the continuous revision process as it pertains to IEEE Standards C57.12.00 and C57.12.90.
2. Significant revisions to IEEE Standard C57.12.00-2015, IEEE Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers.
3. Significant revisions to IEEE Standard C57.12.90-2015, IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers.

To open the presentation, Steve Snyder will discuss the continuous revision process, clarifying the role of the Standards Subcommittee with respect to the various subcommittees that provide technical expertise and material for the revised standards. C57.12.00 and C57.12.90 are unique in the sense that they are "base standards", which the product standards build upon, undergoing continuous review and revision. C57.12.00 and C57.12.90 are also considered "companion standards": C57.12.00 sets the performance requirements, and C57.12.90 defines the test requirements and procedures necessary to meet C57.12.00.

Engineering expertise resides in the various subcommittees, such as: Performance Characteristics, Dielectric Tests, Insulation Life, Insulating Fluids, and Distribution Transformers. Work flow begins in individual Task Forces (TF), progresses up through the various subcommittees, and finally is collected by the Standards Subcommittee for inclusion in a document's revision ballot. A new revision is considered when enough new material is collected to warrant a revision ballot, generally about a 5-year cycle. The PAR for the revision work exists in the associated Working Group (WG) within the Standards Subcommittee.

As WG Chair of C57.12.00, Steve Snyder will present the changes that occurred in this standard for the 2015 edition.

As WG Chair of C57.12.90, Steve Antosz will present the changes that occurred in this standard for the 2015 edition.

2. Learning Objectives

This presentation will help users of these two “base” standards understand the new requirements implemented in this revision cycle.

3. Learning Outcomes

As a result of attending this tutorial session, members will gain an understanding of the following:

- The process of "how" standard revisions are proposed, vetted, and ultimately adopted.
- The significant changes in the 2015 revisions of standards C57.12.00 and C57.12.90.
- The rationale for those changes.

4. Presenters' Biographies

Stephen (Steve) Antosz is President of Stephen Antosz & Associates, Inc. This transformer consulting firm provides engineering services to utility and industrial users of power transformers for shell-form and core-form, new and existing units. Areas of focus are: specification development, bid evaluation, design review, factory inspection, test witness, field inspection, and failure analysis. Prior to starting his own firm in 2010, Steve worked for 22 years as a technical and commercial manager in various segments of the power transformer industry. He began his career as a transformer design engineer, rose through the ranks as a transformer specialist for several well-known companies, and is familiar with a range of transformer technologies. Steve earned a BS degree in Electrical Engineering and an MBA degree. He is currently Chairman of the IEEE/PES Transformers Committee and a member of several working groups and subcommittees of the Committee.

Steven L. Snyder is the Manager of Engineering, High Voltage Instrument Transformers, North America, for ABB Inc. In this position, he oversees all the engineering efforts for these North American product lines, including both production and R&D projects. Over a career spanning 38 years, he has worked in a variety of capacities for McGraw-Edison, Cooper Industries, Kuhlman Electric, and ERMCO, with engineering and R&D experience in distribution and substation equipment. Steve has been an active IEEE member for 35 years, active with the Transformers Committee since 1995, and is presently a member of several working groups and subcommittees. He is a 1978 graduate of the University of Cincinnati with a BS degree in electrical engineering technology.