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To Bill.Chiu@SCE.com
cc Donald.Fallon@pseg.com, stds-pes-scc@ieee.org,
richardd@ca.trenchgroup.com
bcc Matthew Ceglia/STDS/STAFF/US/IEEE@IEEE
Subject Approval of Project - PC57.16

02 November 2006

Bill Chiu
Southern California Edison
501 South Marengo Avenue
Alhambra, CA 91802
bill.chiu@sce.com

Re: PC57.16 - Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors

Dear Bill:

I am pleased to inform you that on 02 November 2006 the IEEE-SA Standards Board approved the above referenced project until 31 December 2010. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C57-16.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at s.hampton@ieee.org no later than 31 January 2007.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at +1 732 562 6003 or by email at s.hampton@ieee.org.

Sincerely,

Sherry Hampton
Administrator, Governance
Standards Activities
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PAR Request Date: 21 September 2006

PAR Approval Date: 02 November 2006

PAR Signature Page on File: Yes

Type of PAR: Revision to IEEE Standard

Status: Revision to an Existing IEEE Std C57.16-1996

Root Project:

1.1 Project No.: **C57.16**

1.2 Type of Document: Standard

1.3 Life Cycle: Full-Use

1.4 Is this document in ballot now? No

2.1 Title

Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors

3.1 Working Group Name [Dry Type Transformers - Dry Type Air-Core Reactors Working Group](#)

Working Group Chair

[Dudley, Richard F](#)

Phone: 416-298-8108

Email: richardd@ca.trenchgroup.com

Working Group Vice Chair

3.2 Sponsor

[IEEE Power Engineering Society Transformers \(PE/TR\)](#)

Sponsor Chair

[Fallon, Don J](#)

Phone: 973-430-8191

Email: donald.fallon@ieee.org

Name of Standards Liaison Representative (if applicable)

[Chiu, Bill](#)

Phone: 626-308-6086

Email: bill.chiu@sce.com

3.3 Joint Sponsor

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: November 2009

4.3 Projected Completion Date for Submittal to RevCom: November 2010

5.1 Approximate number of people expected to work on this project: 20

5.2 Scope: This standard applies to series-connected dry-type air-core single-phase and three-phase outdoor or indoor reactors of distribution and transmission voltage class that are connected in the power system to control power flow under steady state conditions and/or limit fault current under short-circuit conditions. Dry-type air-core reactors covered by this standard are self-cooled by natural air convection. With some restrictions, this standard is applicable to filter reactors, shunt capacitor reactors (used with shunt capacitor banks), and discharge current-limiting reactors (used with series capacitor banks). Annexes A, B, and C are included to provide guidance. This standard does not apply to devices such as a) Shunt reactors (see IEEE Std C57.21-1990, IEEE Standard Requirements, Terminology, and Test Code for Shunt Reactors Rated Over 500 kVA), b) Arc suppression coils, c) Neutral grounding devices [see IEEE Std 32-1972 (Reaff 1990), IEEE Standard Requirements, Terminology, and Test Procedures for Neutral Grounding Devices], d) Line resonant reactors, e) High-Voltage direct current (HVDC) smoothing reactors, f) Forced cooled reactors, and g) Line traps and radio interference (RI) filter reactors (ANSI C93.3-1995).

Old Scope: This standard applies to "series connected" dry-type air-core single-phase or three-phase outdoor or indoor reactors of distribution and transmission voltage class that are connected in the power system to control power flow under steady state conditions and/or limit fault current under short-circuit conditions. Dry-type air-core reactors covered by this standard are self-cooled by natural air convection. With some restrictions, this standard is applicable to filter reactors, shunt capacitor reactors (used with shunt capacitor banks), and discharge current-limiting reactors (used with series capacitor banks). Annexes A, B, and C are included to provide guidance. This standard does not apply to devices such as a) Shunt reactors (see IEEE Std C57.21-1990, IEEE Standard Requirements, Terminology, and Test Code for Shunt Reactors Rated Over 500 kVA), b) Arc suppression coils, c) Neutral grounding devices [see IEEE Std 32-1972 (Reaff 1990), IEEE Standard Requirements, Terminology, and Test Procedures for Neutral Grounding Devices], d) Line resonant reactors, e) High-Voltage direct current (HVDC) smoothing reactors, f) Forced cooled reactors, and g) Line traps and radio interference (RI) filter reactors (ANSI C93.3-1995).

5.3 Is the completion of this document contingent upon the completion of another document? No

5.4 Purpose: The purpose of the standard is to define the requirements and test code for series connected dry-type air-core reactors and with some restrictions filter reactors, shunt capacitor reactors and discharge current-limiting reactors.

Old Purpose: The existing ANSI C57.16-1958, which is still in use by the industry, is out of date and has been withdrawn as an IEEE standard. It has now been revised to reflect modern product technology, to describe up-to-date test methods, and to present application requirements for series reactors.

5.5 Need for the Project: The existing document, although in large part relevant, is in need of revision to reflect changes in test code and test methodology (including test equipment). Update of requirements is needed to reflect current industry practice and knowledge. An annex will be added to describe circuit breaker TRV issues associated with the application of current-limiting reactors.

5.6 Stakeholders for the Standard: The stakeholders are electrical utilities, power equipment manufacturers (including manufacturers of dry-type air-core reactors) and consultants working in the electrical power industry.

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes **Presented Date:** 2006-10-23

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? No

Technical Committee Name and Number:

Contact person:

Contact person Phone Number:

Contact person Email Address:

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

7.4 Additional Explanatory Notes:

The change to the purpose is to reflect it as it will appear in the published standard.

8.1 Sponsor Information:

Is the Scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain: