

#### IEEE / PES /TRANSFORMERS COMMITTEE

## Standards Report

To: Members of IEEE Transformers Committee From: William H. Bartley, Standards Coordinator

Member of IEEE SA Standards Board

Date: April 10, 2011

Re: Transformer Standards Activity

#### **Executive Summary**

This report covers the Transformer Standards activity for the six-month period of Oct 1 2010 to April 1, 2011. The Transformer Committee is responsible for approximately 90 active standards, plus 43 projects for new standards and revisions.

#### In this Report:

| I.    | Nescom and PARs activity            | pg 1      |
|-------|-------------------------------------|-----------|
| II.   | RevCom and Standards activity       | pg 2      |
| III.  | Standards Board Meeting Schedule    | pg 3      |
| IV.   | Transformer Committee Ballot Status | pg 6      |
| V.    | Transformer Standards Expiring 2011 | pg 7      |
| VI.   | Transformer Committee active PARs   | pg 8-9    |
| VII.  | Transformer Stds Status database    | pg 10- 24 |
| VIII. | Transformer Stds Org Chart          | pg 25-26  |

### I. NESCOM \ PAR Activities

#### In December 2010, Standards Board approved the following PAR Modifications:

**PC57.12.91**Standard Test Code for Dry-Type Distribution and Power Transformers modified PAR approved until **December 2011** 

PC57.98 Guide for Transformer Impulse Tests

modified PAR approved until December 2010 (see extension below)

#### In December 2010, Standards Board approved the following PAR Extensions:

PC57.12.20Standard for Overhead Type Distribution Transformers, ≤500 kVA Approved request for an extension until December 2011

PC57.16

Std Requirements, Terminology, & Test Code for Dry-Type Air-Core Series-Connected Reactors

Approved request for an extension until **December 2011** 

PC57.19.100

Guide for Application of Power Apparatus Bushings

Approved request for an extension until December 2011

PC57.91

Guide for Loading Liquid Immersed Transformers and Voltage Regulators

Approved request for an extension until December 2011

PC57.98

Guide for Transformer Impulse Tests

Approved request for an extension until December 2011

PC57.100

Std Test Procedure for Thermal Evaluation of Insulation Systems for L-I Distribution and Power Transformers

\*\*Approved request for an extension until December 2011\*

#### PAR Extensions continued

#### PC57.131

Standard Requirements for Tap Changers

Approved request for an extension until December 2011

#### PC57.143

Guide for Application for Monitoring Equipment to Liquid-Immersed Transformers and Components

Approved request for an extension until December 2012

#### PC57.149

Guide for the Application and Interpretation of Frequency Response Analysis for Oil Immersed Transformers Approved request for an extension until **December 2012 PC57.150** 

Guide for the Transportation of Transformers and Reactors Rated >10MVA

Approved request for an extension until **December 2011** 

#### In December 2010, Standards Board approved the following PAR for a REVISON:

**PC57.19.01** Standard Performance Characteristics and Dimensions for Outdoor Apparatus Bushings new PAR will expire **December 2014** 

#### In February 2011, the Standards Board approved the following new PARs for Revisions

#### PC57.125

Guide for Failure Investigation, Documentation, Analysis, and Reporting for Power Transformers and Shunt Reactors

\*\*new PAR will expire December 2015\*\*

#### PC57.138

Recommended Practice for Routine Impulse Test for Distribution Transformers new PAR will expire **December 2015** 

#### In March 2011, the Standards Board approved the following new PARs for Revisions

PC57.12.34 Requirements for Pad-Mounted, Compartmental Type, Self Cooled, 3ph Dist Transformers, <10MVA new PAR will expire December 2015
PC57.140 Guide for Evaluation and Reconditioning of Liquid Immersed Power Transformers new PAR will expire December 2015

## II. REVCOM \ Standards Activities

#### **NEW Transformer Standards Approved**

In December 2010, Standards Board approved the following new Standards:

C57.139 Guide for Dissolved Gas Analysis in Transformer Load Tap Changers

**C57.142** Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformer, Switching Device, And System Interaction *Their expiration date is* **December 31**, **2015**.

#### **Revisions Approved**

none

#### **Reaffirmations Approved**

In December 2010, Standards Board approved the following Reaffirmation:

**C57.19.00-2004** REAFFIRMATION Standard General Requirements and Test Procedures for Power Apparatus Bushings. *New expiration date is December 31, 2015* 

#### **Other Standards Activity**

The following Transformer standards were due to expire at the end of 2010. At our request, the IEEE-SA Standards Board granted the following extensions, at the Dec-2010 meeting:

**1538-2000 (R2005)** Guide for Determination of Maximum Winding Temperature Rise in Liquid-Filled Transformers

Sponsor states that reaffirmation ballot has been initiated and requests a one-year extension. <u>Recommendation</u>: Extend until December 2011.

**C57.12.20-2005** Std for Overhead Type Distribution Transformers, < 500 kVA Sponsor states that a PAR extension is on the December NesCom agenda. Recommendation: Extend for the duration of the PAR. (Dec 2011)

**C57.16-1996 (R2001)** IEEE Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors

Sponsor states that a PAR extension is on the December NesCom agenda.

Recommendation: Extend for the duration of the PAR. (2011)

**C57.19.01-2000 (R2005)** IEEE Standard Performance Characteristics and Dimensions for Outdoor Apparatus Bushings Sponsor states that a revision PAR is on the December NesCom agenda. Recommendation: Extend for the duration of the PAR. (Dec 2014)

**C57.19.100-1995 (R2003)** IEEE Guide for Application of Power Apparatus Bushings Sponsor states that a PAR extension is on the December NesCom agenda.

<u>Recommendation:</u> Extend for the duration of the PAR. (Dec 2011)

**C57.91-1995 (R2004)** IEEE Guide for Loading Mineral-Oil-Immersed Transformers [Also C57.91-1995/Cor 1-2002 (R2004)] Sponsor states that a PAR extension is on the December NesCom agenda. Recommendation: Extend for the duration of the PAR. (Dec 2011)

**C57.98-1994 (R1999)** IEEE Guide for Transformer Impulse Tests Sponsor states that a PAR extension is on the December NesCom agenda. Recommendation: Extend for the duration of the PAR. (Dec 2011)

**C57.100-1999** IEEE Standard Test Procedure for Thermal Evaluation of Liquid-Immersed Distribution and Power Transformers Sponsor states that a PAR extension is on the December NesCom agenda. <u>Recommendation:</u> Extend for the duration of the PAR. (Dec 2011)

**C57.116-1989 (R2005)** IEEE Guide for Transformers Directly Connected to Generators Sponsor states that reaffirmation ballot has been initiated and requests a one-year extension. Recommendation: Extend until December 2011.

C57.117-1986 (R2005) IEEE Guide for Reporting Failure Data for Power Transformers and Shunt Reactors on Electric Utility Power Systems

**C57.125-1991 (R2005)** IEEE Guide for Failure Investigation, Documentation, and Analysis for Power Transformers and Shunt Reactors

Sponsor states that the WG has decided to merge C57.117 and C57.125 into one guide, with the number C57.125. The PAR has been submitted for the January 2011 NesCom agenda. Recommendation: Extend for the duration of the PAR- **Dec 2015**.

# **C57.131-1995** IEEE Standard Requirements for Load Tap Changers Sponsor states that a PAR extension is on the December NesCom agenda. Recommendation: Extend for the duration of the PAR. (Dec 2011)

**C57.138-1998 (R2005)** IEEE Recommended Practice for Routine Impulse Test for Distribution Transformers

Sponsor states that a revision PAR has been submitted for the January 2011 NesCom agenda. <u>Recommendation</u>: Extend for the duration of the PAR - **Dec 2015**.

C57.146-2005 IEEE Guide for Interpretation of Gasses Generated in Silicone-Immersed Transformers

Sponsor states that reaffirmation ballot has been initiated and requests a one-year extension. Recommendation: Extend until December 2011

Note: This Ballot has closed with no negatives – it should be submitted to Revcom.

There were no standards submitted to Revcom for January Early Consideration, or March Standards meeting. Submission deadline for next Standards Bd Meeting: May 6 2011

## III. 2011 IEEE Standards Board Meeting Schedule

DEADLINES for upcoming NESCOM and REVCOM Submissions:

| June Meeting      | May 6, 2011      |
|-------------------|------------------|
| September Meeting | July 29, 2011    |
| December Meeting  | October 17, 2011 |

## III. 2011 IEEE Standards Board Meeting Schedule

|   | JULY  | January  | February   | March   |
|---|---|--|--|---|
|   | 21 RAC - San Francisco, CA  |  | 3 M   W     3 4 5  | 3 M W III 7 3 4 5   |
|   | AUGUST  | 3 4 5 6 7  | 7 8 9 10 11  | 7 8 9 10 11   |
| 07 Infl Ad-Hoc - India  |   | 10 11 12 13  | 7 8  | 14 15 16 17 18  |
| 08 Port. Mgmt. Ad-Hoc – India<br>08 BOG Dinner/Caucus - India                   | SEPTEMBER   | 24 25 26 27 28   | 4<br>3   | 27 28 29 30 31  |
| 09 BOG - India  | 08-10 SASB/Cmfe Mtgs Seoul, S. Korea  | 30 31  |  |   |
| 15-20 IEEE BOD Series - Miami, FL   | 14-15 CAG - Santa Clara, CA (Intel host)  |  |  |   |
| 28 CAG – Outreach (Europe)  | OCTOBER   | April  | ÁDA  | anne  |
|   |   | 3 M M M H F 3  | 3 M   W      3<br>1 2 3 4 5 6 7  | 3 M   W      5 3 4  |
| 01-03 CAG - Outreach (Europe)   | NOVEMBER  | 4 5 6 7 8  | 9 10 11 12 13  | 6 7 8 9 10  |
| 29-31 SASB/Cmle Migs - Piscalaway, NJ   | 15-20 IEE BOD Series - New Brunswick, NJ  | 10 11 12 13 14 15 16   | 72 23 24 25 26 27 28   | 12 13 14 15 16 17 18  |
|   | 29-30 CAG - Piscataway, NJ  | 25 26 27 28 29   | 30 31  | 27 28 29 30   |
|   | DECEMBER  |  |  |   |
|   | 01 Infl Ad-Hoc - Piscalaway, NJ   |  |  |   |
|   | 02 Port. Mgmt. Ad-Hoc - Piscataway, NJ  | JUNY M S M T W TH F S  | S M T W TH F S   | S M T W TH F S  |
|   | 03 BOG Meeting – Piscalaway, NJ   |  | 1 2 3 4 5  | 1 2   |
| 08 Infl Ad-Hoc - Piscatawcy, NJ   | 04 Awards Ceremony – New Brunswick, NJ  | 4 5 6 7 8  | 8 9 10 11 12   | 5 6 7 8 9   |
| 09 Port. Mgmt. Ad-Hoc – Piscalaway, NJ<br>09 BOG Dinner/Caucus – Fiscalaway, NJ | 05-07 SASB/Cmfe Migs Piscalaway. NJ   | 10 11 12 13 14 15 16<br>17 18 19 20 <mark>21</mark> 22 23  | 21 22 23 34 25 26 27   | 11 12 13 14 15 16 17<br>18 19 20 21 22 23 24  |
| 10 BOG Meeling - Piscalaway, NJ   |   | 24 25 26 27 28 29 30   | 28 29 30 31  | 25 26 27 28 29 30   |
| 14-16 SASB/Cmle Migs Fiscalaway, NJ   |   | ,  |  |   |
| 21-26 IEEE BOD Series - Believue, WA  |   | October  | November   | December  |
| CAG - Co-locate with BOD in WA  |   | S M T W TH F S   | S M T W TH F S   | S M T W TH F S  |
|   | *Deadline for AudCom/NesCom*/RevCom<br>Submissions:<br>18 February<br>06 May<br>29 July<br>17 October | 1<br>2 3 4 5 6 7 8<br>9 10 11 12 13 14 15<br>16 17 18 19 20 21 22<br>23 24 25 26 27 28 29<br>30 31 | 1 2 3 4 5<br>6 7 8 9 10 11 12<br>13 14 15 16 17 18 19<br>20 21 22 23 24 25 26<br>27 28 29 30 | 1 2 3<br>2 6 7 8 9 10<br>11 12 13 14 15 16 17<br>18 19 20 21 22 23 24<br>25 26 27 28 29 30 31 |

| VI. Tra        | as of April 1, 2011  |   |                         |                   |                      |
|----------------|----------------------|---|-------------------------|-------------------|----------------------|
| SubComm        | PAR or<br>Standard # | Title   | Stage                   | # of<br>Balloters | Ballot<br>Close Date |
| Dielectric     | PC57.98              | Guide for Transformer Impulse Tests   | Comment<br>Resolution   | 140               | 11/06/2010           |
| Distribution   | PC57.12.20           | Std for Overhead Transformers, 500 kVA and Smaller:   | Comment<br>Resolution 1 | 92                | 03/26/2011           |
| Dry Type       | PC57.12.91           | Std Test Code for Dry-Type Distribution and Power Transformers                                    | Comment<br>Resolution   | 101               | 11/21/2010           |
| Dry Type       | PC57.16              | Std Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Reactors                | Comment<br>Resolution   | 93                | 10/23/2010           |
| Ins Fluids     | PC57.130             | Trial-Use Guide for Use of DGA Applied to Factory Temperature Rise Tests                          | Comment<br>Resolution   | 116               | 07/26/2006 ?         |
| Ins Fluids     | C57.146-<br>2005     | DGA Guide for Silicone-Immersed Transformers  | Comment<br>Resolution   | 73                | 12/21/2010           |
| Ins Life       | 1538-2000            | Guide for Determination of Max Winding Temp<br>Rise in L.F. Transformers                          | PreBallot               | 123               | never ?<br>balloted  |
| Ins Life       | PC57.100             | Std Test Procedure for Thermal Evaluation of<br>Insulation Systems for Liquid-Immersed            | Comment<br>Resolution   | 120               | 06/07/2010           |
| Ins Life       | PC57.91              | Guide for Loading Liquid Immersed Transformers and Voltage Regulators                             | Comment<br>Resolution   | 131               | 10/30/2010           |
| Power<br>Trans | C57.116-<br>1989     | Guide for Transformers Directly Connected to Generators   | Comment<br>Resolution   | 113               | 11/29/2010           |
| Power<br>Trans | C57.117-<br>1986     | Guide for Failure Investigation, Documentation,<br>Analysis, and Reporting for Power Transformers | Comment<br>Resolution   | 104               | 12/20/2009           |
|                | C57.125-<br>1991     | and Shunt Reactors (These two will be merged into one new doc.)                                   | Comment<br>Resolution   | 118               | 12/20/2009           |
| Power<br>Trans | PC57.131             | Std Requirements for Tap Changers   | Comment<br>Resolution   | 117               | 11/15/2009           |
| Power<br>Trans | PC57.135             | Guide for the Application, Specification and Testing of Phase Shifting Transformers               | Comment<br>Resolution   | 78                | 02/16/2011           |
| Power<br>Trans | PC57.143             | Guide for Monitoring Equipment to Liquid-<br>Immersed Transformers and Components                 | Comment<br>Resolution   | 143               | 01/04/2011           |
| UG & NWP       | PC57.12.40           | Std for Network, 3ph Transformers,< 2500 kVA; Subway and Vault Types                              | Ballot                  | 81                | 04/14/2011           |

## V. Transformer Standards Expiring December 2011

<u>Action is required</u> for the following standards by the end of 2011. **NOTE**: The "end of 2011" is **October 17**, 2011 ... not December!! The following are your options: a) Let it expire; b) Start a reaffirmation ballot; or c) Submit a PAR for a Revision; (Any expiring standards will be automatically extended for the life of its PAR).

32-1972 (R1997) Std Requirements, Terminology, and Test Procedures for Neutral Grounding Devices

638-1992 (R2006) Std for Qualification of Class 1E Transformers for Nuclear Power Generating Stations

**1276-1997 (R2006)** Guide for the Application of High-Temp Insulation Materials in L-I Power Transformers

1538-2000 (R2005) Guide for Determination of Maximum Winding Temperature Rise in L-F Transformers

C57.12.20-2005 Standard for Overhead Type Distribution Transformers, < 500 kVA

C57.12.37-2006 Standard for the Electronic Reporting of Distribution Transformer Test Data

C57.12.40-2006 Std for Requirements for Secondary Network Transformers, Subway and Vault Types

C57.12.59-2001 (R2006) Guide for Dry-Type Transformer Through-Fault Current Duration

C57.12.91-2001 Standard Test Code for Dry-Type Distribution and Power Transformers

C57.16 -1996 (R2001) Standard Requirements, Terminology, and Test Code for Dry-Type Reactors

C57.19.03-1996 (R2002) Standard Requirements, Terminology, and Test Code for Bushings for DC Applications [Also: C57.19.03-1996/Cor 1-2005]

C57.19.100-1995 (R2003) Guide for Application of Power Apparatus Bushings

**C57.91-1995 (R2004)** Guide for Loading Mineral-Oil-Immersed Transformers [Also: C57.91-1995/Cor 1-2002 (R2004)]

**C57.94-1982 (R2006)** Recommended Practice for Installation, Application, Operation, and Maintenance of Dry-Type General Purpose Distribution and Power Transformers

C57.98-1994 (R1999) Guide for Transformer Impulse Tests

**C57.100-1999** Standard Test Procedure for Thermal Evaluation of L-I Distribution and Power Transformers

C57.106-2006 Guide for Acceptance and Maintenance of Insulating Oil in Equipment

C57.116-1989 (R2005) Guide for Transformers Directly Connected to Generators

C57.120-1991 (R2006) Loss Evaluation Guide for Power Transformers and Reactors

C57.131-1995 Standard Requirements for Load Tap Changers

C57.134-2000 (R2006) Guide for Determination of Hottest-Spot Temperature in Dry-Type Transformers

C57.135-2001 Guide for the Application, Specification, and Testing of Phase-Shifting Transformers

C57.146-2005 Guide for Interpretation of Gasses Generated in Silicone-Immersed

Note to WG Chairs: many of the above standards already have ballots in progress. However, you MUST submit the Ballot to REVCOM by October 17th to prevent a withdrawal. If the ballot will not be ready, it is <u>your</u> responsibility to notify the Standards Coordinator, William Bartley prior to Oct 17th.

| VI. Transformers Committee Active PARs as of April 1, 2011 |  |               |  |  |  |  |
|--|--|---------------|--|--|--|--|
| PAR<br>Number  | Title  | Expiration    |  |  |  |  |
| P638   | Standard for Qualification of Class 1E Transformers for Nuclear Power Generating Stations  | 2011€         |  |  |  |  |
| P65700-19-03   | Standard for Bushings for DC application   | 2011€         |  |  |  |  |
| PC57.12.01   | Standard for General Requirements for Dry-Type Distribution and Power Transformers   | 2013          |  |  |  |  |
| PC57.12.20   | Standard for Overhead Type Distribution Transformers, <500 kVA   | 2011 <b>←</b> |  |  |  |  |
| PC57.12.28   | Standard for Pad Mounted Equipment - Enclosure Integrity   | 2014          |  |  |  |  |
| PC57.12.29   | Standard for Pad Mounted Equipment - Enclosure Integrity for Coastal Environments  | 2014          |  |  |  |  |
| PC57.12.35   | Standard for Bar Coding for Distribution Transformers and Step-Voltage Regulators  | 2014          |  |  |  |  |
| PC57.12.37a  | IEEE Standard for the Electronic Reporting of Distribution Transformer Test Data -<br>Amendment: Updating to Include Efficiency Fields | 2013          |  |  |  |  |
| PC57.12.38   | Standard for Pad-Mounted-Type, Self-Cooled, 1-Ph Dist Transformers; < 250 kVA  | 2014          |  |  |  |  |
| PC57.12.40   | Standard for Network, 3-Phase Transformers, <2500 kVA; Subway and Vault Types  | 2011 <b>←</b> |  |  |  |  |
| PC57.12.44   | Standard Requirements for Secondary Network Protectors   | 2014          |  |  |  |  |
| PC57.12.52   | Standard for Sealed Dry-Type Power Transformers, 3 ph, >501 kVA - General Requirements   | 2011 <b>←</b> |  |  |  |  |
| PC57.12.70   | Standard Terminal Markings and Connections for Distribution and Power Transformers   | 2011 <b>←</b> |  |  |  |  |
| PC57.12.91   | Standard Test Code for Dry-Type Distribution and Power Transformers  | 2010          |  |  |  |  |
| PC57.13  | Standard Requirements for Instrument Transformers  | 2014          |  |  |  |  |
| PC57.13-<br>2008/Cor 1                                     | Standard Requirements for Instrument Transformers - Corrigendum 1: Figure 3 Correction   | 2014          |  |  |  |  |
| PC57.13.7  | Standard for Current Transformers with a Maximum mA Secondary Current of 250mA   | 2014          |  |  |  |  |
| PC57.16  | Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Reactors   | 2011 <b>←</b> |  |  |  |  |
| PC57.17  | Standard Requirements for Arc Furnace Transformers   | 2011 <b>←</b> |  |  |  |  |
| PC57.19.01   | Standard Performance Characteristics and Dimensions for Outdoor Apparatus Bushings   | 2014          |  |  |  |  |
| PC57.19.100  | Guide for Application of Power Apparatus Bushings  | 2011€         |  |  |  |  |
| PC57.32  | Standard Requirements, Terminology and Test Procedures for Neutral Grounding Devices   | 2011€         |  |  |  |  |
| PC57.91  | Guide for Loading Liquid Immersed Transformers and Voltage Regulators  | 2011€         |  |  |  |  |
| PC57.96  | Guide for Loading Dry-Type Distribution and Power Transformers   | 2013          |  |  |  |  |
| PC57.98  | Guide for Transformer Impulse Tests  | 2011€         |  |  |  |  |
| PC57.100   | Standard Test Procedure for Thermal Evaluation of Insulation Systems   | 2011€         |  |  |  |  |
| PC57.104   | Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers   | 2014          |  |  |  |  |

| PAR<br>Number | Title   | Expiration    |
|---------------|---|---------------|
| PC57.120      | Guide for Loss Evaluation of Distribution and Power Transformers and Reactors   | 2014          |
| PC57.125      | Guide for Failure Investigation, and Reporting for Power Transformers and Shunt Reactors  | 2015          |
| PC57.130      | Trial-Use Guide for the Use of DGA Applied to Factory Temperature Rise Tests  | 2014          |
| PC57.131      | Standard Requirements for Tap Changers  | 2011 <b>←</b> |
| PC57.135      | Guide for the Application, Specification and Testing of Phase Shifting Transformers   | 2011 <b>←</b> |
| PC57.136      | Guide for Sound Level Abatement and Determination   | 2014          |
| PC57.138      | Recommended Practice for Routine Impulse Test for Distribution Transformers   | 2015          |
| PC57.143      | Guide for Application for Monitoring Equipment to L-I Transformers & Components   | 2012          |
| PC57.148      | Standard for Control Cabinets for Power Transformers  | 2010          |
| PC57.149      | Guide for the Application and Interpretation of FRA for Oil Immersed Transformers   | 2012          |
| PC57.150      | Guide for the Transportation of Transformers and Reactors Rated 10,000 kVA or larger  | 2011 <b>←</b> |
| PC57.152      | Diagnostic Field Testing of Fluid Filled Power Transformers, Regulators, and Reactors   | 2012          |
| PC57.153      | Guide for Paralleling Power Transformers  | 2012          |
| PC57.154      | Standard for the Design, Testing and Application of Distribution, Power and Regulating Transformers Using High-Temperature Insulation Systems | 2013          |
| PC57.155      | Guide for DGA in Natural Ester and Synthetic Ester Immersed Transformers  | 2014          |
| PC57.637      | Guide for the Reclamation of Insulating Oil and Criteria for Its Use  | 2012          |

#### "←" denotes PAR will Expire the end of 2011

Note to WG Chairs: many of the above PARs will expire Dec 31, 2011. If you will not be submitting a Ballot to REVCOM by <u>October 17th</u>, it is <u>your</u> responsibility to request a PAR Extension, by no later than October 17<sup>th</sup>.

Note #2: some of the above PARs have already been granted one or more Extensions. NesCom /Standards Board is very reluctant to grant <u>another</u> extension unless there are extenuating circumstances.

For assistance, contact your Standards Coordinator, William Bartley <u>prior</u> to October 17th. (William\_bartley@hsb.com)

# **IEEE/PES TRANSFORMERS COMMITTEE Status Report of PES/Transformers Committee**

| STANDARD<br>PROJECT | TITLE | Working Group Chair<br>Phone<br>Email | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark |
|---------------------|-------|---------------------------------------|--------------------------|-------------------------------|---------------------------|
| SubCommittee        |       |                                       |                          | _                             |                           |

#### **NONE**

Chair

| SubCommittee    | BUSHING   | (417) 345-5926                                     |                    |            |   |
|-----------------|---|--|--------------------|------------|---|
| Chair           | Zhao P.   | peter.zhao@HydroOne.com                            |                    |            |   |
| C57.19.00       | Standard General Requirements and Test Procedure for Power Apparatus Bushings | Ellis K. P.<br>(615) 847-2157<br>keithcota@aol.com | 2004<br>12/31/2015 |            | Approved  Formally Std. IEEE 21 Previous revision 1991.  Errata issued March 2010   |
|                 |   |  |                    |            | Reaffirmation approved 12/8/2010  |
| C57.19.01       | IEEE Standard Performance Characteristics and                                 | Del Rio  | 2000               | 12/08/2010 | Approved +PAR for Revision  |
| PC57.19.01      | Dimensions for Outdoor Apparatus Bushings                                     | 905 426 2665<br>arturo.delrio@trench-group.com     | 12/31/2014         | 12/31/2014 | Formally Std. IEEE 24 Reaffirmed in 2005. Dec '10: Revcom extended for duration of PAR, December 2014   |
| C57.19.03-1996/ | Standard Requirements, Terminology, and Test Code                             | Recksiedler  |                    | 03/25/2007 | Approved + PAR for Revision   |
| P65700-19-03    | for Bushing for DC Applications - Corrigendum 1                               | 204 474 3192                                       | 12/31/2007         | 12/31/2011 | Published 6/6/2006 See Corrigenda -1, Published in 2006 New PAR for revision submitted 10/2007 Std merging with IEC std PAR Modification approved March 2010  |
| C57.19.100      | IEEE Guide for Application of Power Apparatus                                 | Spitzer T.   | 1995               | 03/30/2006 | Approved - Active PAR for Revision  |
| PC57.19.100     | Bushings  | (817) 215-6457<br>tommy.spitzer@oncorgroup.com     | 12/31/2011         | 12/31/2011 | Revision for C57.19.101-1992  New PAR requested and approved to 12/31/2010.  PAR ext on Dec'10 Agenda  Dec '10: Nescom and Revcom extended until December 20: |

| STANDARD<br>PROJECT | TITLE   | Working Group Chair<br>Phone<br>Email                | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|---|--|--------------------------|-------------------------------|--|
| SubCommittee        | DIELECTRIC TESTS  | (614) 552-1759                                       |                          |                               |  |
| Chair               | Wagenaar L. B.  | lbwagenaar@ieee.org                                  |                          |                               |  |
| C57.113             | IEEE Guide for Partial Discharge Measurement in   | Poulin B.  | 1991                     |                               | Approved std   |
|                     | Liquid-Filled Power Transformers and Shunt Reactors   | (450) 652-2901<br>bertrand.f.poulin@ca.abb.com       | 12/31/2015               |                               | Revision approved June 2010  |
| C57.127             | IEEE Guide for the Detection of Acoustic Emissions from Partial Discharges in Oil-Immersed Power Transformers | Harley J. W.<br>(330) 657-2471<br>jack@harleyinc.com | 2007<br>12/31/2012       |                               | Approved   |
| C57.138             | IEEE Recommended Practice for Routine Impulse Test  | Crotty   | 1998                     | 02/02/2010                    | Approved - Reaffirmed in June '05  |
| PC57.138            | for Distribution Transformers   | 573 659 6265<br>john.w.crotty@us.abb.com             | 12/31/2015               | 12/31/2015                    | Reaffirmation approved by RevCom on 6/8/05. PAR application in progress Dec '10: Nescom approved new PAR until Dec31 2015 Revccom extended std until Dec 2015  |
| C57.98              | IEEE Guide for Transformer Impulse Tests  | Molden A.  | 1994                     | 09/12/2002                    | Approved - Active PAR for Revision   |
| PC57.98             |   | (845) 225-0993<br>a.molden@ieee.org                  | 12/31/2011               | 12/31/2011                    | PAR to Revise IEEE Std C57.98-1994 PAR extension requested and approved to 12/31/2009. Currently in Ballot /PAR mod and ext on Dec'10 Agenda Dec '10: PAR mod and extension approved by Nescom Revcom extended until December 2011 |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email                  | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|---------------------|--|--|--------------------------|-------------------------------|---|
| SubCommittee        | DISTRIBUTION TRANSFORMERS  | (417) 625-6110   |                          |                               |   |
| Chair               | Shull S.   | sshull@empiredistrict.com                              |                          |                               |   |
|                     | Guide for Distribution Transformer Loss Evaluation   | Pekarek T. J.  |                          | 06/25/1998                    | PAR Withdrawn - Inactive WG   |
| PC57.12.33          |  | (330) 761-7800<br>tjpekarek@firstenergycorp.com        |                          | 12/31/2004                    | Decision made at Las Vegas Meeting to discontinue this activity.  |
| C57.12.20           | Standard for Overhead Type Distribution Transformers,  | Traut A.   | 2005                     | 09/15/2006                    | Approved - Active PAR for Revision  |
| PC57.12.20          | 500 kVA and Smaller, High-Voltage 34 500 Volts and Below; Low-Voltage, 7970/13 800 Y Volts and Below   | 706-548-3121<br>atraut@ieee.org                        | 12/31/2011               | 12/31/2011                    | New PAR requested and approved to 12/31/2010. PAR extension on Dec '10 NESCOM agenda Dec '10: Nescom and Revcom extended until December 2011        |
| C57.12.28           | Standard for Pad Mounted Equipment - Enclosure   | Olen O.  | 2005                     | 09/30/2010                    | Approved  |
| PC57.12.28          | Integrity  | (262) 835-3362<br>rolen@cooperpower.com                | 12/31/2010               | 12/31/2014                    | Previously NEMA/ANSI C57.12.28-1999<br>Published 9/30/2005<br>PAR for Revision approved by NESCOM Sept 2010   |
| C57.12.29           | Standard for Pad Mounted Equipment - Enclosure   | Olen O.  | 2005                     | 09/30/2010                    | Approved  |
| PC57.12.29          | Integrity for Coastal Environments   | (262) 835-3362<br>rolen@cooperpower.com                | 12/31/2010               | 12/31/2014                    | Previously NEMA/ANSI C57.12.29-1991<br>Current standards Published 10/10/2005.<br>PAR for Revision approved by NESCOM Sept 2010                     |
| C57.12.30           | Std for Pole-Mounted Eqpt - Enclosures for Coastal   | Olen O.  |                          |                               | Approved new standard   |
|                     | Environment  | (262) 835-3362   | 12/31/2015               |                               | new standard approved June 2010   |
|                     |  | rolen@cooperpower.com                                  |                          |                               |   |
| C57.12.31           | IEEE Standard for Pole Mounted Equipment -   | Olen O.  | 2002                     |                               | Approved  |
|                     | Enclosure Integrity  | (262) 835-3362<br>rolen@cooperpower.com                | 12/31/2015               |                               | Published 3/6/2003.  New PAR approved 3/22/2007  Std Bd approved 6/17/2010  |
| C57.12.32           | Standard for Submersible Equipment - Enclosure   | Olen O.  | 2002                     |                               | Approved  |
|                     | Integrity  | (262) 835-3362<br>rolen@cooperpower.com                | 12/31/2013               |                               | Published 3/7/2003.<br>Reaffirmation approved Mar 2008  |
| C57.12.34           | Requirements for Pad-Mounted, Compartmental-Type,  | Shull S.   |                          | 03/31/2011                    | Approved + PAR for Revision   |
| PC57.12.34          | Self-Cooled, Three-Phase DistributionTransformers, 2500 kVA and Smaller: High-Voltage, 34 500GrdY/19 920 Volts and Below; Low Voltage, 480 Volts and Below | (417) 625-6110<br>sshull@empiredistrict.com            | 12/31/2014               | 12/31/2015                    | Originally Std. 1447, Combined C57.22-1980 & C57.12.26-<br>1992<br>Revised Standard approved Dec09<br>Mar '11: Nescom approved new PAR for Revision |
| C57.12.35           | IEEE Standard for Bar Coding for Distribution  | Matthews P   | 2007                     | 06/17/2010                    | Approved  |
| PC57.12.35          | Transformers   | (601) 422-1533<br>lmatthews@howard-ind.com             | 12/31/2012               | 12/31/2014                    | Formally P1265. PAR for Revision approved June 2010   |
| C57.12.36           | Standard Requirements for Liquid-Immersed<br>Distribution Substation Transformers  | Rossetti J. R.<br>(901) 528-4743<br>jrossetti@mlgw.org | 2007<br>12/31/2012       |                               | Approved approved by SA Board on 9/27/2007  |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email       | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|--|---|--------------------------|-------------------------------|--|
| SubCommittee        | DISTRIBUTION TRANSFORMERS  | (417) 625-6110                              |                          |                               |  |
| Chair               | Shull S.   | sshull@empiredistrict.com                   |                          |                               |  |
| C57.12.37           | IEEE Standard for the Electronic Reporting of  | Hollingsworth R.                            | 2006                     |                               | Approved   |
|                     | Transformer Test Data  | (601) 422-1105<br>rhollin@howard-ind.com    | 12/31/2011               |                               | Formally C57.132, IEEE Std 1388-2000<br>D11d approved by SA Board on 3/30/2006.<br>Published 7/21/2006               |
| C57.12.38           | Standard for Pad-Mounted, Compartmental-Type, Self-  | Ghafourian A. A.                            | 2009                     | 03/24/2010                    | Approved - revision in progress  |
| PC57.12.38          | Cooled, Single-Phase Distribution Transformers with<br>Separable Insulated High-Voltage Connectors; High<br>Voltage, 34500 GrdY/19920 Volts and Below, Low<br>Voltage, 240/120 Volts; 167 kVA and<br>SmallerRequirements | (731) 285-9121<br>aghafourian@ermco-eci.com | 12/31/2014               | 12/31/2014                    | This std replaces C57.12.21 & C57.12.25<br>Std published Nov 30 2009<br>PAR for Revision approved by Nescom Mar-2010 |
| C57.15              | IEEE Standard Requirements, Terminology, and Test  | Colopy C. A.                                | 1999                     | 06/09/2005                    | Approved - Active PAR for Revision   |
| PC57.15             | Code for Step-Voltage Regulators   | (262) 896-2342<br>ccolopy@cooperpower.com   | 12/31/2014               | 12/31/2009                    | A new PAR was approved 6/9/05 due to scope changes.<br>Original PAR withdrawn.                                       |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email                | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|--|--|--------------------------|-------------------------------|--|
| SubCommittee        | DRY TYPE TRANSFORMERS  | (276) 688-1512                                       |                          |                               |  |
| Chair               | Johnson, Jr. C. W.   | charles.w.johnson@us.abb.com                         |                          |                               |  |
| C57.12.01           | IEEE Standard General Requirements for Dry-Type  | Sullivan J. C.                                       | 2005                     | 12/09/2009                    | Approved   |
| PC57.12.01          | Distribution and Power Transformers Including Those with Solid Cast and/or Resin Encapsulated Windings                         | (813) 884-5424<br>jcsullivan@ieee.org                | 12/31/2010               | 12/31/2013                    | Previous 1998 version was successfully revised and approved in 2005. Published 5/19/2006 PAR for Revision approved Dec 09  |
| C57.12.51           | Ventilated Dry-Type Power Transformers, 501 kVA  | Powell P. A. P                                       |                          |                               | New Project - PAR Requested 6/23/2006  |
|                     | and Large, Three-Phase, with High-Voltage 601 to 34500 Volts; Low-Voltage 208Y/120 to 4160 Volts - General Requirements        | (202) 388-2335<br>papayne@ieee.org                   | 12/31/2013               |                               | Previously NEMA document C57.12.51, original publication<br>by NEMA in 1981, Reaffirmed in 1998. This document was<br>transferred to IEEE in Dec., 2002.<br>Approved by SA Sept 2008 |
| C57.12.52           | Standard Requirements for Sealed Dry-Type Power  | Kennedy S. P.  | 1981                     | 05/07/2007                    | Active PAR for revision  |
| PC57.12.52          | Transformers, 501 kVA and Larger, Three-Phase, with<br>High-Voltage 601 to 34 500 Volts, Low-Voltage<br>208Y/120 to 4160 Volts | (716) 896-6500<br>skennedy@niagaratransformer.c      |                          | 12/31/2011                    | Previously ANSI C57.12.52-1981<br>PAR Expires Dec 2011   |
| C57.12.56           | IEEE Standard Test Procedure for Thermal Evaluation  | Wicks R. C.  | 1981                     |                               | Withdrawn Dec 31 2009  |
|                     | of Insulation Systems for Ventilated Dry-Type Power<br>and Distribution Transformers   | (804) 383-3300<br>roger.c.wicks@usa.dupont.com       | 12/31/2007               |                               | C57.12.56 and C57.12.60 were merged together   |
| C57.12.58           | IEEE Guide for Conducting a Transient Voltage  | Kline A. D.  | 1991                     |                               | Approved - Active  |
|                     | Analysis of a Dry-Type Transformer Coil  | (843) 705-2698<br>AKLINE1490@AOL.COM                 | 12/31/2013               |                               | Reaffirmed Sept 2008   |
| C57.12.59           | IEEE Guide for Dry-Type Transformer Through-Fault  | Powell P. A. P                                       | 2001                     |                               | Approved   |
|                     | Current Duration   | (202) 388-2335<br>papayne@ieee.org                   | 12/31/2011               |                               | Reaffirmation approved in 12/5/2006.   |
| C57.12.60           | IEEE Guide for Test Procedures for Thermal   | Wicks R. C.  | 1998                     |                               | Approved   |
|                     | Evaluation of Insulation Systems for Solid Cast and<br>Resin-Encapsulated Power and Distribution<br>Transformers               | (804) 383-3300<br>roger.c.wicks@usa.dupont.com       |                          |                               | IEEE Std C57.12.56-1986 and IEEE Std C57.12.60-1998 merged together in 2009  |
| C57.12.91           | IEEE Standard Test Code for Dry-Type Distribution  | Foster D. R.   | 2001                     | 12/05/2006                    | Approved - Active PAR for Revision   |
| PC57.12.91          | and Power Transformers   | (815) 678-2421<br>dfoster@olsun.com                  | 12/31/2011               | 12/31/2011                    | New PAR for Revision approved 12/5/2006<br>Ballot Pool Invitation opened 9/12/2010<br>PAR Extentsion on Dec'10 agenda<br>PAR Mod and Extension approved for 1 year till Dec 2011     |
| C57.124             | IEEE Recommended Practice for the Detection of   | Johnson, Jr. C. W.                                   | 1991                     |                               | Approved   |
|                     | Partial Discharge and the Measurement of Apparent<br>Charge in Dry-Type Transformers   | (276) 688-1512<br>charles.w.johnson@us.abb.com       | 12/31/2014               |                               | Need to initiate reaffirmation and requet extension.<br>Reaffirmed Dec09   |
| C57.134             | IEEE Guide for Determination of Hottest Spot<br>Temperature in Dry Type Transformers   | Powell P. A. P<br>(202) 388-2335<br>papayne@ieee.org | 2000<br>12/31/2011       |                               | Approved Reaffirmation approve by RevCom 3/30/2006   |

| STANDARD<br>PROJECT | TIT  | LE   | Working Group Chair<br>Phone<br>Email   |               | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|--|--|---|---------------|--------------------------|-------------------------------|--|
| SubCommittee        | DRY TYPE   | TRANSFORMERS   | (276) 688-1512  |               |                          |                               |  |
| Chair               | Johnson, Jr.   | C. W.  | charles.w.johns   | on@us.abb.com |                          |                               |  |
| C57.16              |  | Requirements, Terminology, and Test  | Dudley  | R. F.         | 1996                     | 11/02/2006                    | Approved   |
| PC57.16             | Code for Dry-Type Air- Core Series-Connected<br>Reactors           |  | (416) 298-8108<br>richardd@ca.trenchgroup.com                                 |               | 12/31/2011               | 12/31/2011                    | PAR for revision approved 11/2/2006. PAR for Mod and Extension on Dec'10 agenda - Ballot in progress Dec '10: Nescom and Revcom extended until December 2011 |
| C57.94              |  | nded Practice for Installation,  | Lewis   | T. D.         | 1982                     |                               | Approved   |
|                     | General Purpose  | oplication, Operation, and Maintenance of Dry-Type<br>eneral Purpose Distribution and Power Transformers | (910) 738-4251<br>tlewis@acmepo   |               | 12/31/2011               |                               | Reaffirmation approved by the SA Board on 12/6/2006  |
| C57.96              | IEEE Guide for   | Loading Dry Type Distribution and  | Marek   | R. P.         | 1999                     | 12/09/2009                    | Approved - Active  |
| PC57.96             | Power Transformers   |  | (804) 383-2376 <b>12/31/2013</b> 12/31/2013<br>Richard.P.Marek@usa.dupont.com |               |                          | 12/31/2013                    | RevCom approved reaffirmation on 9/22/2004<br>Previous revision in 1994.<br>PAR for Revision approved Dec 2009<br>Ext expiration until PAR exp 2013          |
| IEEE 259            |  | IEEE Standard Test Procedure for Evaluation of   |   | S             | 1999                     |                               | Approved   |
|                     |  | tems of Insulation for Dry-Type Specialty and<br>neral-Purpose Transformers                              | (603) 545-3026  |               | 12/31/2015               |                               | 9/22/04 - RevCom approved reaffirmation<br>Reaffirmed March 2010   |
| SubCommittee        | HVDC CON   | TX & SMRs  | (416) 298-8108  |               |                          |                               |  |
| Chair               | Dudley   | R. F.  | richardd@ca.tre   | enchgroup.com |                          |                               |  |
| C57.129             | IEEE General R   | equirements and Test Code for Oil  | Dudley  | R. F.         | 2007                     |                               | Approved   |
| PC57.129            | Immersed HVDC Converter Transformers                               |  | (416) 298-8108<br>richardd@ca.trenchgroup.com                                 |               | 12/31/2012               |                               | Trial use std published 6/6/2000; upgraded to full use 3/2002 PAR for revision of C57.129-1999 approved on 6/24/2004 approved by SA Board 9/27/2007          |
| IEEE 1277           |  | equirements and Test Code for Dry-   | Dudley  | R. F.         | 2000                     |                               | Approved. Active PAR for revision  |
|                     | Type and Oil-Immersed Smoothing Reactors for DC Power Transmission |  | (416) 298-8108<br>richardd@ca.trenchgroup.com                                 |               | 12/31/2015               |                               | Active PAR for revision.<br>Ballot approved March 2010   |

| STANDARD<br>PROJECT | TITLE   | Working Group Chair<br>Phone<br>Email             | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|---|---|--------------------------|-------------------------------|--|
| SubCommittee        | INSTRUMENT TRANSFORMERS   | (416) 751-8570                                    |                          |                               |  |
| Chair               | McTaggart R.  | rossdm@ca.trenchgroup.com                         |                          |                               |  |
|                     | Standard for Instrument Transformer with max output                     | Alton   |                          | 09/30/2010                    | New Project  |
| PC57.13.7           | of 250ma  |   |                          | 12/31/2014                    | New project approved by NESCOM Sept 2010   |
| C57.13              | IEEE Standard Requirements for Instrument                               | Smith J. E.                                       | 2008                     | 03/24/2010                    | Approved - Active PAR to revise std.   |
| PC57.13             | Transformers  | (601) 346-9104<br>jes1@ieee.org                   | 12/31/2013               | 12/31/2014                    | PAR to Revise IEEE Std C57.13-2008 submitted to<br>NESCOM<br>PAR approved by NESCOM Mar-2010<br>PAR for Corrigendum approved Sept 2010           |
| C57.13.2            | Conformance Test Procedure for Instrument                               | Smith J. E.                                       | 2005                     |                               | Approved   |
|                     | Transformers  | (601) 346-9104<br>jes1@ieee.org                   | 12/31/2015               |                               | PAR to Revise Std C57.13.2-1991; harmonize with C57.13-1993<br>D4 approved by RevCom on 6/8/2005<br>Published 9/29/2005.<br>Reaffirmed 6/17/2010 |
| C57.13.5            | Standard of Performance and Test Requirements for                       | Riffon P.   | 2006                     | 12/07/2005                    | Approved - Active PAR for Revision   |
| PC57.13.5           | Instrument Transformers of a Nominal System Voltage of 115 kV and Above | (514) 840-3000 x3424<br>riffon.pierre@hydro.qc.ca | 12/31/2011               | 12/31/2009                    | Reference Std. 1400<br>Previously C57.13.5 was a trial use<br>Upgraded to Full Use 3/30/2006   |
| C57.13.6            | Standard for High Accuracy Instrument Transformers                      | Smith J. E.                                       |                          |                               | Approved   |
|                     |   | (601) 346-9104<br>jes1@ieee.org                   | 12/31/2015               |                               | Document published in 12/9/2005<br>Reaffiremed 2010  |

| STANDARD<br>PROJECT  | Working Group Chair Phone Email   |  | Pub Year<br>Rev Due Date  | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|----------------------|---|--|---------------------------|-------------------------------|---|
| SubCommittee         | INSULATING FLUIDS   | (612) 330-6904   |                           |                               |   |
| Chair                | McNelly S.J.  | sjmcnelly@ieee.org   |                           |                               |   |
| PC57.130             | IEEE Trial-Use Guide for the Use of Dissolved Gas<br>Analysis During Factory Temeprature Rise Tests for the<br>Evaluation of Oil-Immersed Transformers and Reactors |  |                           | 06/16/2010<br>12/31/2014      | New Project - Std under development  New Project - Std under development - currently under ballot resolution.  PAR extension requested and approved to 12/31/2007.  New PAR approved June 2010                          |
|                      | DGA Guide for Esters filled Transformers  | Boman P.E.   |                           | 03/24/2010                    | New Project   |
| PC57.155             |   | (785)256-7161<br>paul_boman@hsb.com                          |                           | 12/31/2014                    | PAR approved by NESCOM - March-2010   |
| C57.104              | IEEE Guide for the Interpretation of Gases Generated  | Ladroga R. K.  | 1991                      | 01/09/2010                    | Active + New PAR for Revision   |
| PC57.104             | in Oil-Immersed Transformers  | (617) 393-3133<br>rladroga@doble.com                         | 12/31/2013                | 12/31/2014                    | PAR to Revise IEEE Std C57.104-1991<br>Original PAR and document withdrawn in Dec. 2005.<br>New PAR approved in June, 2006.<br>New PAR approved Jan 2010  |
| C57.106              | IEEE Guide for Acceptance and Maintenance of  | Thompson J. A.   | 2006                      |                               | Approved  |
|                      | Insulating Oil in Equipment   | (605) 534-3571<br>writejt@trservice.com                      | 12/31/2011                |                               | D6 pproved 12/6/2006<br>Previously version in 2002, 1991 (R1998), 1977  |
| C57.111              | IEEE Guide for Acceptance of Silicone Insulating Fluid and Its Maintenance in Transformers  | Gryszkiewicz F. J.<br>(617) 393-3161<br>frankjg@ieee.org     | 1983<br>12/31/2014        |                               | Approved  |
| C57.121              | IEEE Guide for Acceptance and Maintenance of Less-<br>Flammable Hydrocarbon Fluid in Transformers   | Sundin<br>9035267577<br>sales@dsifluids.com                  | 1998<br><b>12/31/2014</b> |                               | Approved  Was to be administratively withdrawn in Dec., 2004 Reaffirmation ballot pool invitation initiated in October, 2005 Reaffirmed Dec 2009  |
| C57.139              | Guide for Dissolved Gas Analysis in Transformer Load  | Jakob F.   | 2010                      |                               | Approved  |
|                      | Tap Changers  | 916-801-0800<br>fredi.jakob@gmail.com                        | 12/31/2015                |                               | PC57.139 was approved as a new standard by the IEEE-SA Standards Board on December 8, 2010  |
| C57.146              | Guide for Interpretation of Gasses Generated in<br>Silicone-Immersed Transformers   | Murphy J.R.<br>(407) 824-4194<br>jerry.murphy@ieee.org       | 2005<br>12/31/2010        |                               | Approved  D3a - approved by RevCom on 9/21/05. Published 3/10/2006 Reaff Ballot invitation opened Oct 2010 Ballot closed Dec 21 '10 with No Negatives Revcom approved extension until Dec 2011 to complete Reaff ballot |
| C57.147              | Guide for Acceptance and Maintenance of Natural Ester Fluids in Transformers  | McShane C. P.<br>(262) 524-4591<br>cpmcshane@cooperpower.com | 12/31/2013                |                               | Active New Standard approved May 2008   |
| IEEE 637<br>PC57.637 | IEEE Guide for the Reclamation of Insulating Oil and Criteria for Its Use   | Thompson J. A. (605) 534-3571 writejt@trservice.com          | 1985<br><b>12/31/2012</b> | 12/10/2008<br>12/31/2012      | Approved - Reaffirmed  Reaffirmation approved by SA Board 9/27/2007  PAR for Revision approved Dec 2008   |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email                   | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|--|---|--------------------------|-------------------------------|--|
| SubCommittee        | INSULATION LIFE  | 405-622-8816  |                          |                               |  |
| Chair               | Forsyth B. I.  | bruce.forsyth@ieee.org                                  |                          |                               |  |
|                     | IEEE Guide for Sound Level Measurement for Liquid<br>Immersed Transformers and Reactors        | Puri J.   |                          | 12/07/2005                    | PAR Withdrawn 2010   |
| P57.151             | mimersed transformers and Reactors   | (704) 821-6638<br>manopuri@worldnet.att.net             |                          | 12/31/2009                    | IEC granted permission for use of IEC documents<br>PAR Extension denied by NESCOM; PAR withdrawn   |
|                     | Guide for the Definition of Thermal Duplicate Liquid-  | Beaster B. L.   | 0                        |                               | PAR WITHDRAWN  |
| PC57.145            | Immersed Distribution, Power, and Regulating Transformers                                      | (601) 422-1302<br>blbeaster@ieee.org                    |                          |                               | Previously P1524<br>Modified PAR to expire in 2004<br>PAR administratively withdrawn in December, 2004   |
|                     | Design, Testing and App of Liquid-Immersed   | Marek R. P.   |                          | 03/19/2009                    |  |
| PC57.154            | Transformers with High-Temp Insulation   | (804) 383-2376  |                          | 12/31/2013                    | PAR for new standard approved March 2009   |
|                     |  | Richard.P.Marek@usa.dupont.co                           | om                       |                               |  |
| C57.100             | IEEE Standard Test Procedure for Thermal Evaluation  | Wicks R. C.   | 1999                     | 12/08/2004                    | Approved - Active PAR for Revision   |
| PC57.100            | of Liquid-Immersed Distribution and Power<br>Transformers                                      | (804) 383-3300<br>roger.c.wicks@usa.dupont.com          | 12/31/2011               | 12/31/2011                    | Requested PAR for revision on 10/18/2004. PAR approved 12/8/2004 PAR Mod approved Mar 2010 In Ballot Resolution PAR Ext on Dec'10 agemda Dec '10: Nescom and Revcom extended until December 2011         |
| C57.119             | IEEE Recommended Practice for Performing   | Tuli S. C.  | 2001                     |                               | Approved   |
|                     | Temperature Rise Tests on Oil Immersed Power<br>Transformers at Loads Beyond Nameplate Ratings | (262) 547-0123 x1428<br>subhash.tuli@waukeshaelectric.s |                          |                               | Previously IEEE 838. Published 3/12/2002.<br>Reaffirmed Mar 2008   |
| C57.91              | IEEE Guide for Loading Mineral-Oil-Immersed  | Duckett D. A.   | 1995                     | 12/09/2009                    | Approved - Active PAR for revision   |
| PC57.91             | Transformers   | (407) 942-9401<br>don.duckett@pgnmail.com               | 12/31/2011               | 12/31/2011                    | Combined from C57.91-1981 & C57.92-1981 & C57.115-1991   |
|                     |  |   |                          |                               | New PAR for revision approved 5/2/2005. PAR Extension Request approved Dec09 until 12/31/2010 PAR Mod approved Sept 2010 PAR Ext on Dec'10 agenda Dec'10: Nescom and Revcom extended until December 2011 |
| C57.91-1995/Cor     | IEEE Guide for Loading Mineral-Oil-Immersed  | Duckett D. A.   | 2002                     |                               | Approved - Active PAR for Revision   |
|                     | TransformersCorrigendum 1  | (407) 942-9401<br>don.duckett@pgnmail.com               | 12/31/2007               |                               | In conjunction with C57.91 - reaffirmed in 6/2004. Currently under revision  |
| IEEE 1276           | IEEE Guide for the Application of High-Temperature   | Franchek M. A.  | 1997                     |                               | Approved   |
|                     | Insulation Materials in Liquid-Immersed Power Transformers                                     | (802) 751-3539<br>mfranchek@weidmann-systems.           | 12/31/2011<br>com        |                               | Upgrade from trial use to full use on 3/30/2000<br>Reaffirmation approved by SA Board in 3/30/2006   |
| IEEE 1538           | IEEE Guide for Determination of Maximum Winding  |   | 2000                     |                               | Approved   |
|                     | Temperature Rise in Liquid Filled Transformer  |   | 12/31/2011               |                               | Original approval in 2000. Reaffirmed in 2005.<br>Reaffirmation Ballot Invitation opened Oct 2010 - 1 yr ext<br>requested<br>Dec '10: Revcom extended until December 2011                                |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email  | Pub Year<br>Rev Due Date  | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|---------------------|--|--|---|-------------------------------|---|
| SubCommittee        | PERFORMANCE CHARACTERISTICS  | (412) 498-3916   |   |                               |   |
| Chair               | Antosz S.  | santosz@ieee.org   |   |                               |   |
| PC57.133            | Guide for Short-Circuit Testing of Distribution and Power Transformers                         | Fortin M.<br>450-922-0925<br>fortin.marcel@ieee.org  |   | 03/04/2005<br>12/31/2009      | PAR Withdrawn  New PAR for revision approved on 2/22/05.  |
|                     | Guide for the Application and Interpretation of  | Sweetser C.L.  |   | 06/24/2004                    | New Project - Active PAR  |
| PC57.149            | Frequency Response Analysis for Oil Immersed<br>Transformers                                   | (781) 672-6214<br><charles.sweetser@omicronusa< td=""><td></td><td>12/31/2012</td><td>PAR approved by NesCom 6/23/2004<br/>PAR extension request submitted - on Dec NESCOM agenda<br/>Dec'10: NESCOM approved 2 yr extension</td></charles.sweetser@omicronusa<> |   | 12/31/2012                    | PAR approved by NesCom 6/23/2004<br>PAR extension request submitted - on Dec NESCOM agenda<br>Dec'10: NESCOM approved 2 yr extension                                    |
| C57.105             | IEEE Guide for Application of Transformer  | Reitter G. J.  | 1978  |                               | Approved  |
|                     | Connections in Three-Phase Distribution Systems  | (650) 508-2850 <b>12/31/2013</b> greitter@deltastar.com  |   |                               | Was to be administratively withdrawn in Dec., 2004.<br>Request extension to 2006.<br>Reaffirmation ballot pool invitation initiated in October, 2005<br>Reaffirmed 2008 |
| C57.109             | IEEE Guide for Liquid-Immersed Transformers  | Patel B. K.  | 1993  |                               | Approved  |
|                     | Through-Fault-Current Duration   | (205) 987-8012 <b>12/31/2013</b> bkpatel8012@charter.net   |   |                               | Reaffirmation ballot pool invitation initiated in October, 2005 Reaffirmed Mar 2008   |
| C57.110             | IEEE Recommended Practice for Establishing   | Marek R. P.  | 1998  | 11/18/2004                    | Approved  |
| PC57.110            | Transformer Capability When Supplying Nonsinusoidal Load Currents                              | (804) 383-2376<br>Richard.P.Marek@usa.dupont.c   | (804) 383-2376 <b>12/31/2013</b> Richard.P.Marek@usa.dupont.com |                               | PAR approved 11/18/2004.<br>Ballot closed on 9/27/2007- need recirculation<br>Approved by REVCOM Mar 2008   |
| C57.120             | IEEE Loss Evaluation Guide for Power Transformers  | Traut A.   | 1991  | 03/24/2010                    | Approved - revision in progress   |
| PC57.120            | and Reactors   | 706-548-3121<br>atraut@ieee.org  | 12/31/2011  | 12/31/2014                    | Reaffirmation approved by RevCom 6/8/2006. PAR for Revision submitted 1/21/2010 to merge C57.120 & C57.12.33 Approved by NESCOM Mar-2010                                |
| C57.123             | IEEE Guide for Transformer Loss Measurement  | TeNyenhuis E.G.  | 2002  | 02/20/2007                    | Approved std  |
| PC57.123            |  | (519) 837-4691<br>ed.g.tenyenhuis@ca.abb.com   | 12/31/2015  | 12/31/2011                    | Ref Std. IEEE 1098<br>Revision approved June 2010   |
| C57.136             | IEEE Guide for Sound Level Abatement and   | Darwin A.W.  | 2000  | 09/30/2010                    | Approved + Active PAR for Revision  |
| PC57.136            | Determination for Liquid- Immersed Power<br>Transformers and Shunt Reactors Rated Over 500 kVA | 44 1785 274370<br>alan.darwin@areva-td.com   | 12/31/2010  | 12/31/2014                    | Reaffirmation approved by RevCom on 9/21/2005<br>PAR for Revision approved by NESCOM Sept 2010  |
| C57.142             | A Guide To Describe The Occurrence And Mitigation  | Degeneff R. C.   | 2010  | 05/07/2007                    | Approved  |
| PC57.142            | Of Switching Transients Induced By Transformer-<br>Breaker Interaction                         | (518) 276-6367<br>degenr@rpi.edu   | 12/31/2015  | 12/31/2011                    | PC57.142 was approved as a new standard by the IEEE-SA Standards Board on December 8, 2010  |
| C57.18.10           | IEEE Standard Practices and Requirements for   | Kennedy S. P.  | 1998  |                               | Approved  |
|                     | Semiconductor Power Rectifier Transformers   | (716) 896-6500<br>skennedy@niagaratransformer.   | <b>12/31/2008</b><br>com  |                               | Replaced the C57.18-1964 for pool cathode mercury-arc rectifiers.  Amendment 1: Technical and Editorial Corrections was approved 3/27/08                                |

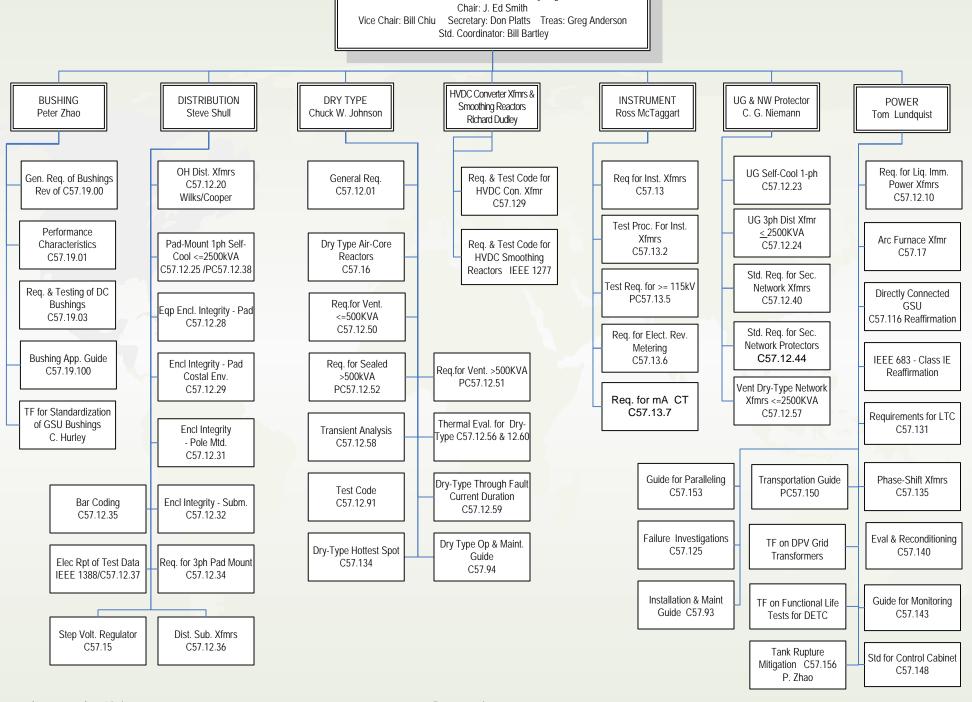
| STANDARD<br>PROJECT | TITLE   | Working Group Chair<br>Phone<br>Email         | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |  |  |
|---------------------|---|---|--------------------------|-------------------------------|--|--|--|
| SubCommittee        | PERFORMANCE CHARACTERISTICS                       | (412) 498-3916                                |                          |                               |  |  |  |
| Chair               | Antosz S.   | santosz@ieee.org                              |                          |                               |  |  |  |
| C57.21              | IEEE Standard Requirements, Terminology, and Test | Dudley R. F.                                  | 1990                     | 09/11/2003                    | Approved - Active PAR for Revision   |  |  |
| PC57.21             | Code for Shunt Reactors Rated Over 500 kVA        | (416) 298-8108<br>richardd@ca.trenchgroup.com | 12/31/2013               | 12/31/2007                    | Reaffirmation approved on 6/23/2004.<br>Revised Std approved Mar 2008  |  |  |
| IEEE 32             | IEEE Standard Requirements, Terminology, and      | Schappell S. M.                               | 1972                     | 12/11/2002                    | Approved - Active PAR to revise std  |  |  |
| PC57.32             | Testing Procedures for Neutral Grounding Devices  | (919) 580-3240<br>schappell@ieee.org          | 12/31/2009               | 12/31/2011                    | PAR to Revise IEEE Std 32-1972<br>Dec. 2002 - Sponsor changed from PES/SPD to PES/TR<br>Being revised under PC57.32<br>PAR Modified and extended to Dec 2011 |  |  |

| STANDARD PROJECT | TITLE                                   |                               | Working Grou<br>Phone<br>Email            | ıp Chair      | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|------------------|---|-------------------------------|---|---------------|--------------------------|-------------------------------|---|
| SubCommittee     | POWER TRANSF                            | ORMERS                        | (602) 236-8617                            |               |                          |                               |   |
| Chair            | Lundquist T.                            |                               | tom.lundquist@ie                          | eee.org       |                          |                               |   |
|                  |   | r Monitoring Equipment to     | Chu                                       | D.            |                          | 03/21/2002                    | New Project - Active PAR Std under developemnt  |
| PC57.143         | Liquid-Immersed Transfe                 | ormers and Components         | (212) 460-3456<br>chud@coned.con          | n             |                          | 12/31/2012                    | PAR extension requested approved on 12/5/2006. PAR extension request submitted Sept 2010 - on Dec NESCOM agenda Dec'10: NESCOM approved 2 yr extension  |
|                  | Standard for Control Cab                | pinets for Power Transformers | Watson                                    | J.D.          |                          | 02/27/2004                    | New Project - Active PAR Std under development  |
| PC57.148         |   |                               | (561) 691-2206<br>joe_watson@ieee         | e.org         |                          | 12/31/2011                    | PAR Mod and extension approved Sept 2010 until Dec 2011   |
|                  | Guide for the Transporta                | tion of Large Power           | Anderson                                  | G. W.         |                          | 11/18/2004                    | New Project - PAR approved in Nov. 2004   |
| PC57.150         | Transformers and Reacto                 | ors                           | (402) 680-1111<br>gwanderson@iee          | -             |                          | 12/31/2011                    | PAR approved by NesCom in 11/18/2004<br>PAR Extension on Dec'10 agenda<br>Dec'10: NESCOM approved 1 yr extension  |
|                  | Guide for Paralleling Pov               | wer Transformers              |   | E.T.          |                          | 03/27/2008                    | PAR For new standard  |
| PC57.153         |   |                               | (727) 866-0632<br>jauch@ieee.org          |               |                          | 12/31/2012                    | PAR approved Mar 2008   |
| PC57.156         | Guide to Tank Rupture N                 | Aitigation                    | Zhao<br>(417) 345-5926<br>peter.zhao@Hydi | P.            |                          |                               | PAR is being prepared   |
|                  | Standard Requirements for               | or Arc Furnace Transformers   | Ganser                                    | R.            |                          | 03/22/2007                    | NEW PAR for revision of   |
| PC57.17          | -                                       |                               | (330) 492-8433<br>rganser@aol.com         | 1             |                          | 12/31/2011                    | PAR for revision of old ANSI Std. requested.<br>MEC Completed /Ready for ballot   |
| C57.116          | IEEE Guide for Transfor                 | mers Directly Connected to    | Raymond                                   | T.            | 1989                     |                               | Approved  |
|                  | Generators                              |                               | (518) 884-0297<br>tc.raymond@ieee         | org.          | 12/31/2010               |                               | Reaffirmation approved in Dec. 2005<br>Reaffirmation Invitation opened October 2010<br>Reaffirmation Ballot Closed Nov 29 '10 with many Negatives<br>Dec '10: Revcom extended until December 2011 |
| C57.117          |   | g Failure Data for Power      | Binder, Jr.                               | W. B.         | 1986                     |                               | Approved  |
|                  | Transformers and Shunt<br>Power Systems | Reactors on Electric Utility  | (724) 654-3839<br>wbbinder@aol.co         |               | 12/31/2006               |                               | Previously IEEE 786-1986, original approval date 6/19/1986<br>Reaffirmation ballot in resoluiton.<br>Will be merged with C57.125  |
| C57.12.10        |   | or Liquid-Immersed Power      | Hoffman                                   |               | 1997                     |                               | Approved standard   |
|                  | Transformers                            |                               | (973) 621-6600<br>grhoffman@advp          | oowertech.com | 12/31/2015               |                               | Formally NEMA/ANSI document.  |
| C57.125          | IEEE Guide for Failure I                | nvestigation, Documentation,  | Binder, Jr.                               | W. B.         | 1991                     | 02/01/2011                    | Approved  |
| C57.125          | and Analysis for Power T<br>Reactors    | Fransformers and Shunt        | (724) 654-3839<br>wbbinder@aol.co         | om            | 12/31/2015               | 12/31/2015                    | Std reaffirmed 5/10/2005 Oct'10: decision to merg with C57.117. PAR for Revision submitted Oct 13 2010 Dec'10: NESCOM approved new PAR for merger of 117 and 125 Revcom extended till Dec '15     |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email           |           | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|---------------------|--|---|-----------|--------------------------|-------------------------------|---|
| SubCommittee        | POWER TRANSFORMERS                                   | (602) 236-8617                                  |           |                          |                               |   |
| Chair               | Lundquist T.   | tom.lundquist@                                  | ieee.org  |                          |                               |   |
| C57.131             | IEEE Standard Requirements for Load Tap Changers     | Henning   | W. R.     | 1995                     | 05/15/2003                    | Approved - Active PAR for Revision  |
| PC57.131            |  | (262) 547-0121 whenning@ieee                    | e.org     | 12/31/2011               | 12/31/2011                    | PAR to Revise IEEE Std C57.131-1995 PAR Modified Dec 09 and extended to Dec 2010. In Ballot Resolution. PAR Extension on Dec'10 agenda Dec '10: Nescom & Revcom extend untul Dec31 2011 |
| C57.135             | IEEE Guide for the Application, Specification and    | Sim   | Н. Ј.     | 2001                     | 02/20/2007                    | Approved - Active PAR for Revision  |
| PC57.135            | Testing of Phase- Shifting Transformers              | (919) 580-3234<br>jin.sim@ieee.org              |           | 12/31/2011               | 12/31/2011                    | Approved for IEEE/IEC Dual Logo Dec. 2005 - IEC 62032 Ed. 1   |
| C57.140             | Evaluation and Reconditioning of Liquid Immersed     | James   | R.I.      | 2006                     | 03/31/2011                    | Approved  |
| PC57.140            | Power Transformers                                   | (504) 576-6246<br>r.james@ieee.org              |           | 12/31/2011               | 12/31/2105                    | D18 approved by RevCom 11/16/2006<br>Mar '11: Nescom approved new PAR until Dec31 2015  |
| C57.93              | IEEE Guide for Installation of Liquid-Immersed Power | Lau   | М. Ү.     | 1995                     | 06/13/2002                    | Approved - Active PAR for Revision  |
| PC57.93             | Transformers   | (604) 528-3201<br>mike.lau@bchyo                | dro.bc.ca | 12/31/2012               | 12/31/2007                    | Rev of ASA C57.93-1958, IEEE Std C57.12.11-1980, & C57.12.12-1980 PAR to Revise IEEE Std C57.93-1995 Approved by RevCom 12/2007   |
| IEEE 638            | IEEE Standard for Qualification of Class 1E          | Swinderman                                      | C.        | 1992                     | 06/07/2007                    | Approved - Active - with errata dated 4/7/1999  |
| P638                | Transformers for Nuclear Power Generating Stations   | (724) 778-5234<br>craig.swinderman@meppi.mea.cc |           | 12/31/2011<br>om         | 12/31/2011                    | Reaffirmation approved by SA Board 3/30/2006.<br>New PAR for revision approved 6/7/2007.  |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email                      | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark   |
|---------------------|--|--|--------------------------|-------------------------------|---|
| SubCommittee        | STANDARDS  | (860) 722-5483   |                          |                               |   |
| Chair               | Bartley W. H.  | william_bartley@hsb.com                                    |                          |                               |   |
| C57.12.00           | IEEE Standard for General Requirements For Liquid-                             | Snyder S. L.   | 2010                     |                               | Approved  |
|                     | Immersed Distribution, Power, and Regulating<br>Transformers                   | (731) 288-4282<br>slsnyder@ieee.org                        | 12/31/2015               |                               | 2010 rev approved by SA Board in June, 2010. Published 9/10/2010.   |
| C57.12.70           | IEEE Standard Terminal Markings and Connections for                            | Shull S.   | 2000                     | 05/07/2007                    | Approved - Active PAR for Revision  |
| PC57.12.70          | Distribution and Power Transformers  | (417) 625-6110 12/31/2011 12.<br>sshull@empiredistrict.com |                          | 12/31/2011                    | Reaffirmation approved by RevCom 3/30/2006.<br>Published 3/16/2001.<br>New PAR for revision approved by SA Board 5/7/2007   |
| C57.12.80           | IEEE Standard Terminology for Power and Distribution                           | Chiu B.  | 2002                     |                               | Approved std  |
|                     | Transformers   | (626) 308-6086<br>bill.chiu@sce.com                        | 12/31/2015               |                               | Amendment PAR approved to add thermally upgraded definition<br>Revision approved Sept 2010  |
| C57.12.90           | IEEE Standard Test Code for Liquid-Immersed                                    | Antosz S.  | 2006                     | 05/07/2007                    | Approved  |
| PC57.12.90          | Distribution, Power, and Regulating Transformers                               | (412) 498-3916<br>santosz@ieee.org                         | 12/31/2015               | 12/31/2011                    | Published Oct 2010<br>Approved  |
| C57.144             | Guide for Metric Conversion of Transformer Standards                           | Balma P.M.   | 2004                     |                               | Approved  |
|                     |  | (973) 430-8259<br>peter.balma@pseg.com                     | 12/31/2015               |                               | Published 10/22/2004<br>Reaffirmed March 2010   |
| IEEE 62             | IEEE Guide for Diagnostic Field Testing of Power                               | Verner J. A.   | 1995                     | 05/19/2008                    | Approved  |
| PC57.152            | Apparatus - Part 1: Oil Filled Power Transformers,<br>Regulators, and Reactors | 202 872-2812<br>javerner@pepco.com                         | 12/31/2010               | 12/31/2012                    | Reaffirmation was successful. Approval by RevCom on 3/19/05.  New WG formed to revise document on a continuous basis based on TF recommendation. PAR number assigned PC57.152 |

| STANDARD<br>PROJECT | TITLE  | Working Group Chair<br>Phone<br>Email                      | Pub Year<br>Rev Due Date | PAR Issue Date PAR Expiration | Standard Status<br>Remark  |
|---------------------|--|--|--------------------------|-------------------------------|--|
| SubCommittee        | UNDERGROUND TR & NW PROTECT  | (847) 683-2145   |                          |                               |  |
| Chair               | Niemann C. G.  | carlpumco@sbcglobal.net                                    |                          |                               |  |
| C57.12.23           | IEEE Standard for Underground Type, Self-Cooled,   | Traut A.   | 2009                     |                               | Approved   |
| PC57.12.23          | Single-Phase Distribution Transformers with Separable<br>Insulated High-Voltage Connectors; High Voltage<br>25kV and Below; Low Voltage 600V and Below | 706-548-3121<br>atraut@ieee.org                            | 12/31/2014               |                               | Published 4/20/2009  |
| C57.12.24           | Requirements for Transformers - Underground-Type,  | Termini G.   | 2000                     |                               | Approved standard  |
|                     | Three Phase Distribution Transformers: High Voltage (34 500 GrdY/19 920 V and Below) and Low Voltage (480V and Below, 2500 kVA and Smaller             | (610) 941-1524 12/31/2014 giuseppe.termini@peco-energy.com |                          |                               | Existing standard withdrawn by IEEE on 1/15/2001. No longer endorsed by IEEE. New working group formed to address revision. Need an approved PAR from IEEE SA Board. |
| C57.12.40           | Standard for Requirements for Secondary Network  | Klaponski B.   | 2006                     | 03/27/2007                    | Approved - New PAR for Revision Active   |
| PC57.12.40          | Transformers - Subway and Vault Types (Liquid Immersed)  | (204) 633-7220<br>brian.klaponski@carte.ca                 | 12/31/2011               | 12/31/2011                    | D4 approved by RevCom 3/30/3006.<br>Standard Published 9/15/2006.<br>New PAR approved 3/27/2007  |
| C57.12.44           | IEEE Standard Requirements for Secondary Network   | Wimmer W. G.   | 2005                     | 06/17/2010                    | Approved   |
| PC57.12.44          | Protectors   | (804) 771-4225<br>bill_wimmer@dom.com                      | 12/31/2010               | 12/31/2014                    | PC57.12.44/D2.1 approved by RevCom in December 2005.<br>Published 6/07/2006<br>PAR for Revision approved June 2010   |
| C57.12.57           | Requirements for Ventilated Dry-Type Network   | Robinson A. L.   | 1992                     |                               | Standard withdrawn in 2001   |
| NONE                | Transformers 2500 kVA and Below, Three-Phase with<br>High Voltage 34 500 Voltas and Below, Low Voltage<br>216Y/125 and 480Y/125 Volts                  | (361) 289-4001<br>alrobinson@aep.com                       | 12/31/2000               |                               | Existing standard withdrawn by IEEE on 1/15/2001. No longer endorsed by IEEE.  |



IEEE/PES Transformers Committee - Activity Organization Chart

IEEE/PES Transformers Committee - Activity Organization Chart
Chair: J. Ed Smith
Vice Chair: Bill Chiu Secretary: Don Platts Treas: Greg Anderson

Vice Chair: Bill Chiu Secretary: Don Platts Treas: Greg Anderso Std. Coordinator: Bill Bartley

