

DATE: October 11, 2007

TO: Members of IEEE Transformers Committee, October, 2007 Meeting @ Minneapolis, Minnesota

FROM: Bill Chiu, Standards Subcommittee Chair
IEEE /PES Transformers Committee

SUBJECT: PE/TR Standards Activities since March, 2007 Meeting (Dallas, Texas)

TRANSFORMERS STANDARDS STATUS

The detail status of the Transformers Committee sponsored standards are shown in the attachment entitled IEEE/PES Transformers Committee Status Report of Standards, dated 10/11/2007.

The report is a list of all the transformer related standards under the sponsorship of IEEE Power Engineering Society Transformers Committee (PE/TR). The standards are grouped by Subcommittees and sorted by document numbers. The report also contains the active PARs under the responsible Subcommittee.

IEEE/IEC DUAL LOGO STANDARDS

Currently there is only one document that has obtained the IEEE/IEC dual logo status:

[C57.135-2001](#) – IEEE Guide for the Application, Specification, and Testing of Phase-Shifting Transformers
(Approved by IEC TC 14 as of December, 2004)

The corresponding IEC document number is:

[IEC 62032 Ed. 1](#): Guide for the Application, Specification, and Testing of Phase-Shifting Transformers

Discussions are under way for the consideration of dual log status for:

[C57.123](#) – IEEE Guide for Transformer Loss Measurement

DOCUMENTS PROCESSED BY THE IEEE STANDARDS BOARD

The following sections list all the PE/TR documents processed by the New Standards Committee (NesCom) and the Standards Review Committee (RevCom) of the Standards Board since the March, 2007 meeting in Dallas Texas.

NEW STANDARDS COMMITTEE (NesCom)

EXISTING PARS – EXTENSION, MODIFICATION, and WITHDRAWAL

[PC57.32](#) - Standard Requirements, Terminology and Test Procedures for Neutral Grounding Devices

Recommendation: Approve PAR extension until December 2009.

[PC57.139](#) - Guide for Dissolved Gas Analysis in Transformer Load Tap Changers

Recommendation: Approve PAR extension until December 2009.

Approve [Yes=11, No=0, Abstain=1 (Prevost)]

[PC57.13](#) - Standard Requirements for Instrument Transformers ([Previously Approved PAR](#))

Recommendation: Conditionally approve modified PAR until December 2007 contingent upon the change to Item 7.3 to 'Yes'.

[PC57.12.36](#) - Standard Requirements for Liquid-Immersed Distribution Substation Transformers

Recommendation: Approve modified PAR until December 2008.

NEW PARS FOR REVISIONS OF STANDARDS OR NEW STANDARDS

[P638](#) - Standard for Qualification of Class 1E Transformers for Nuclear Power Generating Stations

Recommendation: Approve PAR for the revision of a standard until December 2011.

[PC57.12.00](#) - Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers

Recommendation: Conditionally approve PAR for the revision of a standard until December 2011 with the following changes:

- *Move last sentence of Item 5.4 to Item 5.5*
- *Remove text from Item 7.4*

PC57.12.30 - Standard for Pole-Mounted Equipment - Enclosure Integrity for Coastal Environments

Recommendation: *Approve new PAR until December 2011.*

PC57.12.31 - Standard for Pole Mounted Equipment - Enclosure Integrity (Previously Approved PAR)

Recommendation: *Approve PAR for the revision of a standard until December 2011.*

PC57.12.40 - Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 GrdY/19 920 and Below; Low Voltage, 600 Volts and Below; Subway and Vault Types (Liquid Immersed) (Previously Approved PAR)

Recommendation: *Approve PAR for the revision of a standard until December 2011.*

PC57.12.52 - Standard for Sealed Dry-Type Power Transformers, 501 kVA and Larger, Three-Phase, with High-Voltage 601 to 34500 Volts, Low-Voltage 208Y/120 to 4160 Volts- General Requirements

Recommendation: *Approve new PAR until December 2011.*

PC57.12.70 - Standard Terminal Markings and Connections for Distribution and Power Transformers (Previous PAR Not Available)

Recommendation: *Approve PAR for the revision of a standard until December 2011.*

PC57.12.90 - Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers ([Previously Approved PAR](#))

Recommendation: *Approve PAR for the revision of a standard until December 2011.*

PC57.17 - Standard Requirements for Arc Furnace Transformers

Recommendation: *Approve new PAR until December 2011.*

PC57.113 - Recommended Practice for Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors ([Previously Approved PAR](#))

Recommendation: *Approve PAR for the revision of a standard until December 2011.*

PC57.142 - Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformer, Switching Device, and System Interaction

Recommendation: *Approve new PAR until December 2011.*

STANDARDS REVIEW COMMITTEE (RevCom)

REAFFIRMATION, EXTENSION, and WITHDRAWAL OF EXISTING STANDARDS

None.

REVISED STANDARDS

C57.12.35/D7 (PE/TR) Standard for Bar Coding for Distribution Transformers and Step-Voltage Regulators

Recommendation: *APPROVE [Vote: Yes=10, No=0, Abstain=1 (Thompson)]*

PC57.127/D10.0 (PE/TR) Guide for the Detection and Location of Acoustic Emissions from Partial Discharges in Oil-Immersed Power Transformers and Reactors

Recommendation: *APPROVE*

PC57.129/D10 (PE/TR) Standard for General Requirements and Test Code for Oil-Immersed HVDC Converter Transformers

Recommendation: *APPROVE*

APPROVAL OF NEW STANDARDS

PC57.12.36/D11 (PE/TR) Standard Requirements for Liquid-Immersed Distribution Substation Transformers

Recommendation: APPROVE [Vote: Yes=10, No=0, Abstain=1 (Thompson)]

STANDARDS DUE TO EXPIRE AT THE END OF 2007

The following projects will be recommended for administrative withdrawn at the December 3, 2007 IEEE-SA Standards Board meeting.

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

(Note: Active PAR for revision under PC57.32. PAR extension approved to December 31, 2009)

C57.12.32-2002 IEEE Standard for Submersible Equipment – Enclosure Integrity

(Need reaffirmation)

C57.12.56-1986 (R1998) IEEE Standard Test Procedure for Thermal Evaluation of Insulation Systems for Ventilated Dry-Type Power and Distribution Transformers

C57.12.58-1991 (R2002) IEEE Guide for Conducting a Transient Voltage Analysis of a Dry-Type Transformer Coil

C57.12.60-1998 IEEE Guide for Test Procedures for Thermal Evaluation of Insulation Systems for Solid Cast and Resin-Encapsulated Power and Distribution Transformers

C57.12.80-2002 IEEE Standard Terminology for Power and Distribution Transformers

C57.19.03-1996 (R2002) IEEE Standard Requirements, Terminology, and Test Code for Bushings for DC Applications
[Also C57.19.03-1996/Cor1-2005]

C57.93-1995 (R2001) IEEE Guide for Installation of Liquid-Immersed Power Transformers

C57.105-1978 (R1999) IEEE Guide for Application of Transformer Connections in Three-Phase Distribution Systems

(Note: Reaffirmation ballot comment resolution – need an activity leader)

C57.109-1993 (R2000) IEEE Guide for Liquid-Immersed Transformers Through-Fault-Current Duration

(Note: Reaffirmation ballot comment resolution - need an activity leader)

C57.119-2001 IEEE Recommended Practice for Performing Temperature Rise Tests on Oil Immersed Power Transformers at Loads beyond Nameplate Ratings

(Note: Reaffirmation ballot comment resolution - need an activity leader)

C57.121-1998 IEEE Guide for Acceptance and Maintenance of Less-Flammable Hydrocarbon Fluid in Transformers

(Note: Reaffirmation ballot failed in March, 2006 due to low response rate. Requested termination of existing ballot and to restart reaffirmation process – Need an activity leader)

C57.124-1991 (R2002) IEEE Recommended Practice for the Detection of Partial Discharge and the Measurement of Apparent Charge in Dry-Type Transformers

C57.131-1995 IEEE Standard Requirements for Load Tap Changers

BALLOT STATUS – SORTED BY INVITATION NUMBER (As of Sept. 30, 2007 from myBallot)

PAR or Standard #	Stage	# of Balloters	Ballot Close Date	Response Rate	Approval Rate	Abstain Rate
C57.136-2000	Submitted To Revcom	78	21-Jul-2005 11:59pm ET	75.6%	100.0%	3.4%
PC57.19.03-1996 Cor 1-	Submitted To Revcom	59	14-Oct-2005 11:59pm ET	86.4%	100.0%	7.8%
C57.19.01-2000	Submitted To Revcom	79	23-Oct-2005 11:59pm ET	81.0%	93.7%	1.6%
PC57.127	Submitted To Revcom	95	10-Feb-2007 11:59pm ET	82.1%	100.0%	6.4%
PC57.12.38	Comment Resolution	78	28-Sep-2007 11:59pm ET	82.1%	95.0%	6.2%
C57.12.32-2002	Ballot	68	27-Oct-2007 11:59pm ET	19.1% / 38	92.3%	0.0%
PC57.12.35	Submitted To Revcom	51	09-May-2007 11:59pm ET	90.2%	100.0%	0.0%
PC57.12.36	Submitted To Revcom	106	21-Jun-2007 11:59pm ET	82.1%	90.6%	2.3%
PC57.12.01	Submitted To Revcom	129	06-Oct-2005 11:59pm ET	84.5%	93.1%	5.5%
C57.12.59-2001	Submitted To Revcom	74	03-Sep-2006 11:59pm ET	77.0%	100.0%	3.5%
PC57.12.51	Ballot	72	06-Oct-2007 11:59pm ET	63.9% / 8	95.6%	0.0%
C57.134-2000	Submitted To Revcom	96	15-Dec-2005 11:59pm ET	75.0%	98.6%	4.2%
C57.94-1982	Submitted To Revcom	117	17-Sep-2006 11:59pm ET	78.6%	92.2%	1.1%
PC57.129	Submitted To Revcom	60	08-Aug-2007 11:59pm ET	88.3%	100.0%	11.3%
638-1992	Submitted To Revcom	49	09-Dec-2005 11:59pm ET	81.6%	94.7%	5.0%
637-1985	Submitted To Revcom	79	25-Aug-2007 11:59pm ET	86.1%	95.5%	2.9%
PC57.104	Ballot	144	10-Oct-2007 11:59pm ET	54.2% / 30	100.0%	2.6%
PC57.106	Submitted To Revcom	139	16-Oct-2006 11:59pm ET	88.5%	95.0%	1.6%
PC57.130	Comment Resolution	116	26-Jul-2006 11:59pm ET	85.3%	88.5%	3.0%
PC57.147	Comment Resolution	107	13-Sep-2007 11:59pm ET	77.6%	98.8%	3.6%
1538-2000	Submitted To Revcom	100	17-Sep-2005 11:59pm ET	76.0%	98.7%	1.3%
InsLife-WGC57.119-2001	Comment Resolution	112	11-Mar-2007 11:59pm ET	78.6%	96.3%	5.7%
PC57.13	Comment Resolution	152	10-May-2007 11:59pm ET	84.2%	89.3%	5.5%
C57.105-1978	Comment Resolution	139	23-Feb-2006 11:59pm ET	77.0%	95.2%	2.8%
C57.109-1993	Comment Resolution	122	28-Feb-2006 11:59pm ET	76.2%	98.9%	3.2%
PC57.110	Comment Resolution	85	27-Sep-2007 11:59pm ET	82.4%	97.1%	2.9%
PC57.142	Comment Resolution	145	08-Sep-2005 11:59pm ET	79.3%	79.4%	5.2%
PC57.21	Ballot	73	07-Oct-2007 11:59pm ET	65.8% / 7	95.7%	4.2%
C57.116-1989	Submitted To Revcom	124	04-Oct-2005 11:59pm ET	75.8%	98.9%	3.2%
C57.120-1991	Submitted To Revcom	131	27-Jul-2005 11:59pm ET	75.6%	100.0%	6.1%
PC57.140	Submitted To Revcom	157	04-Aug-2006 11:59pm ET	88.5%	98.5%	6.5%
PC57.93	Submitted To Revcom	154	16-Sep-2007 11:59pm ET	85.1%	100.0%	4.6%
C57.12.70-2000	Submitted To Revcom	150	24-Feb-2006 11:59pm ET	84.7%	99.2%	0.8%

2008 STANDARDS BOARD MEETINGS SCHEDULE AND SUBMITTAL DEADLINES

IEEE Standards Association Administrative Meetings Schedule

2008

JANUARY	JULY
FEBRUARY	AUGUST
13-17 BOD, Louisville, KY	15 DEADLINE FOR SUBMISSION - NesCom/RevCom
15 DEADLINE FOR SUBMISSION - NesCom/RevCom	21-22 CAG, Nortel, Ottawa to host
26-27 BOG, NYC	
	SEPTEMBER
MARCH	24-26 SASB – Seoul, Korea
04-05 CAG, Microsoft in Seattle, WA to host	
25-27 SASB, Piscataway	OCTOBER
	20 DEADLINE FOR SUBMISSION - NesCom/RevCom
APRIL	
	NOVEMBER
MAY	12-17 BOD, New Brunswick, NJ
02 DEADLINE FOR SUBMISSION - NesCom/RevCom	
12-16 CAG*, Sony in Tokyo to host	DECEMBER
*exact meeting dates tbd	04-05 CAG, FL
JUNE	05-06 BOG, FL
04-05 BOG, Geneva	07 AWARDS CEREMONY
06 WORLD STANDARDS COLLABORATION	08-10 SASB, FL
10-12 SASB, Piscataway	
18-22 BOD, Denver, CO	



NesCom and RevCom both occur on the second day of the SASB meetings

LAST REVISED: 21 SEPTEMBER 2007

LIST OF ALL OPEN STANDARDS PROJECT (as of 09/30/2007)

<http://standards.ieee.org/board/nes/C2-C136.html>

(There are currently 57 active PAR)

[PC57.12.00](#) (PE/TR) Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers

[PC57.12.10](#) (PE/TR) Standard Requirements for Liquid-Immersed Power Transformers

[PC57.12.20](#) (PE/TR) Standard for Overhead Type Distribution Transformers, 500 kVA and Smaller: High Voltage, 34 500 Volts and Below; Low Voltage, 7970/13 800Y Volts and Below

[PC57.12.23](#) (PE/TR) Standard for Submersible Single-Phase Transformers; 167kVA and Smaller; High-Voltage 25 000 Volts and Below; Low Voltage 600 Volts and Below

[PC57.12.24](#) (PE/TR) Standard for Submersible, Three-Phase Transformers, 3750 kVA and Smaller: High Voltage, 34 500 GrdY/19 920 Volts and Below; Low Voltage, 600 Volts and Below

[PC57.12.28](#) (PE/TR) Standard for Pad Mounted Equipment - Enclosure Integrity

[PC57.12.29](#) (PE/TR) Standard for Pad Mounted Equipment - Enclosure Integrity for Coastal Environments

[PC57.12.30](#) (PE/TR) Standard for Pole-Mounted Equipment - Enclosure Integrity for Coastal Environments

[PC57.12.31](#) (PE/TR) Standard for Pole Mounted Equipment - Enclosure Integrity

[PC57.12.34](#) (PE/TR) Requirements for Pad-Mounted, Compartmental Type, Self Cooled; Three Phase Distribution Transformers, 5 MVA and Smaller; High Voltage, 34.5kV Nominal System Voltage and Below; Low Voltage, 15kv Nominal System Voltage and Below

[PC57.12.35](#) (PE/TR) Standard for Bar Coding for Distribution Transformers and Step-Voltage Regulators

[PC57.12.36](#) (PE/TR) Standard Requirements for Liquid-Immersed Distribution Substation Transformers

[PC57.12.38](#) (PE/TR) Standard for Padmounted Type, Self-Cooled, Single Phase Distribution Transformers; High Voltage, 34500 GrdY/19920 Volts and below, Low voltage, 480 Volts and below; 167 KVA and smaller

[PC57.12.40](#) (PE/TR) Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 GrdY/19 920 and Below; Low Voltage, 600 Volts and Below; Subway and Vault Types (Liquid Immersed)

[PC57.12.51](#) (PE/TR) Ventilated Dry-type Power Transformers, 501 kVA and Larger, Three-Phase, with High-Voltage 601 to 34500 Volts; Low-Voltage 208Y/120 to 4160 Volts

[PC57.12.52](#) (PE/TR) Standard for Sealed Dry-Type Power Transformers, 501 kVA and Larger, Three-Phase, with High-Voltage 601 to 34500 Volts, Low-Voltage 208Y/120 to 4160 Volts- General Requirements

[PC57.12.60](#) (PE/TR) Standard Test Procedure for Thermal Evaluation of Insulation Systems for Dry Type Power and Distribution Transformers, Including Ventilated, Solid-Cast and Resin Encapsulated Transformers

[PC57.12.70](#) (PE/TR) Standard Terminal Markings and Connections for Distribution and Power Transformers

[PC57.12.80](#) (PE/TR) Standard Terminology for Power and Distribution Transformers

[PC57.12.80a](#) (PE/TR) Standard Terminology for Power and Distribution Transformers - Amendment 1: Definition of Thermally Upgraded Paper

[PC57.12.90](#) (PE/TR) Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers

[PC57.12.91](#) (PE/TR) IEEE Standard Test Code for Dry-Type Distribution and Power Transformers

[PC57.13](#) (PE/TR) Standard Requirements for Instrument Transformers

[PC57.13.1](#) (PE/PSR) Guide for Field Testing of Relaying Current Transformers

[PC57.13.5](#) (PE/TR) Standard of Performance and Test Requirements for Instrument Transformers of a Nominal System Voltage of 115 kV and Above

[PC57.15](#) (PE/TR) Standard Requirements, Terminology, and Test Code for Step-Voltage Regulators

[PC57.16](#) (PE/TR) Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors

[PC57.17](#) (PE/TR) Standard Requirements for Arc Furnace Transformers

[PC57.18.10a](#) (PE/TR) Standard Practices and Requirements for Semiconductor Power Rectifier Transformers - Amendment 1: Technical and Editorial Corrections

[PC57.19.100](#) (PE/TR) Guide for Application of Power Apparatus Bushings

[PC57.21](#) (PE/TR) Standard Requirements, Terminology, and Test Code for Shunt Reactors Rated Over 500 kVA

[PC57.32](#) (PE/TR) Standard Requirements, Terminology and Test Procedures for Neutral Grounding Devices

[PC57.91](#) (PE/TR) Guide for Loading Liquid Immersed Transformers and Voltage Regulators

[PC57.93](#) (PE/TR) Guide for Installation and Maintenance of Liquid-Immersed Power Transformers

[PC57.98](#) (PE/TR) Guide for Transformer Impulse Tests

[PC57.100](#) (PE/TR) Standard Test Procedure for Thermal Evaluation of Insulation Systems for Liquid-Immersed Distribution and Power Transformers

[PC57.104](#) (PE/TR) Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers

[PC57.106](#) (PE/TR) Guide for Acceptance and Maintenance of Insulating Oil in Equipment

[PC57.110](#) (PE/TR) Recommended Practice for Establishing Liquid-Filled and Dry-Type Power and Distribution Transformer Capability When Supplying Nonsinusoidal Load Currents

[PC57.113](#) (PE/TR) Recommended Practice for Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors

[PC57.119](#) (PE/TR) Recommended Practice for Performing Temperature Rise Tests on Oil Immersed Power Transformers at Loads Beyond Nameplate Rating

[PC57.123](#) (PE/TR) Guide for Transformer Loss Measurement

[PC57.127](#) (PE/TR) Guide for the Detection and Location of Acoustic Emissions from Partial Discharges in Oil-Immersed Power Transformers and Reactors

[PC57.129](#) (PE/TR) Standard for General Requirements and Test Code for Oil-Immersed HVDC Converter Transformers

[PC57.130](#) (PE/TR) IEEE Trial-Use Guide for the Use of Dissolved Gas Analysis During Factory Temperature Rise Tests for the Evaluation of Oil-Immersed Transformers and Reactors

[PC57.131](#) (PE/TR) Standard Requirements for Tap Changers

[PC57.133](#) (PE/TR) Guide for Short-Circuit Testing of Distribution and Power Transformers

[PC57.135](#) (PE/TR) Guide for the Application, Specification and Testing of Phase Shifting Transformers

[PC57.139](#) (PE/TR) Guide for Dissolved Gas Analysis in Transformer Load Tap Changers

[PC57.140](#) (PE/TR) Evaluation and Reconditioning of Liquid Immersed Power Transformers

[PC57.142](#) (PE/TR) Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformer, Switching Device, and System Interaction

[PC57.143](#) (PE/TR) Guide for Application of Monitoring to Liquid-Immersed Transformers and Components

[PC57.147](#) (PE/TR) Guide for Acceptance and Maintenance of Natural Ester Fluids in Transformers

[PC57.148](#) (PE/TR) Standard for Control Cabinets for Power Transformers

[PC57.149](#) (PE/TR) Guide for the Application and Interpretation of Frequency Response Analysis for Oil Immersed Transformers

[PC57.150](#) (PE/TR) Guide for the Transportation of Transformers and Reactors Rated 10,000 kVA or larger

[PC57.151](#) (PE/TR) PC57.151 - Sound Level Measurement Guide for Liquid Filled and Dry Type Transformers and Reactors