

DATE: October 18, 2006

TO: Members of IEEE Transformers Committee, October, 2006 Meeting @ Montreal, Canada

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

SUBJECT: PE/TR Standards Activities since the March, 2006 Meeting (Costa Mesa, CA)

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 10/18/2006.

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 (IEEE Std. **C57.135-2001**)

There were no additional IEEE/IEC dual logo standards approved during this period. The next standard targeted for the IEEE/IEC dual logo approval process is:

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, 2006 meeting in Costa Mesa, CA.

NEW STANDARDS COMMITTEE (NesCom)

EXISTING PARs – EXTENSION & MODIFICATION

PC57.12.00 Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers
(Deferred from the December 2005 meeting)

Recommendation: *Approve target extension request for PAR until December 2007.*

(Note: D3 approved by RevCom 9/15/2006)

PC57.12.10 Standard Requirements for Liquid-Immersed Power Transformers

Recommendation: *Approve target extension request for PAR until December 2008.*

PC57.12.37 Standard for the Electronic Reporting of Distribution Transformer Test Data

(Deferred from the December 2005 meeting)

Recommendation: *Approve target extension request for PAR until December 2006.*

(Note: D3 approved by RevCom 3/30/2006)

PC57.12.38 Standard for Padmounted Type, Self-Cooled, Single Phase Distribution Transformers; High Voltage, 34500 GrdY/19920 Volts and below, Low voltage, 240/120 Volts; 167 kVA and smaller

Recommendation: *Approve modified PAR until December 2009.*

PC57.12.40 Requirements for Secondary Network Transformers, Subway and Vault Types (Liquid-Immersed)

(Deferred from the December 2005 meeting)

Recommendation: *Approve target extension request for PAR until December 2006.*

(Note: D4 approved by RevCom 3/30/2006)

PC57.12.90 Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers

(Deferred from the December 2005 meeting)

Recommendation: *Approve target extension request for PAR until December 2007.*

(Note: D3 approved by RevCom 9/15/2006)

PC57.130 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

(Deferred from the December 2005 meeting)

Recommendation: *Approve target extension request for PAR until December 2007.*

PC57.143 Guide for Application for Monitoring Equipment to Liquid-Immersed Transformers and Components

Recommendation: *Defer the PAR until December 2006. Ken Hanus designated as the mentor.*

PC57.93 Guide for Installation and Maintenance of Liquid-Immersed Power Transformers

Recommendation: *Approve modified PAR until December 2007.*

PC57.98 Guide for Transformer Impulse Tests

Recommendation: *Approve target extension request for PAR until December 2009.*

NEW PARS FOR REVISIONS OF STANDARDS OR NEW STANDARDS

PC57.104 Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers

Recommendation: *Approve PAR for the revision of a standard until December 2010.*

PC57.12.20 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

Recommendation: *Approve PAR for the revision of a standard until December 2010.*

PC57.12.51 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 - General Requirements

Recommendation: *Approve new PAR until December 2010.*

PC57.19.100 Guide for Application of Power Apparatus Bushings

Recommendation: *Approve PAR for the revision of a standard until December 2010.*

PARS DUE TO EXPIRE AT THE END OF 2006

PC57.106 - Guide for Acceptance and Maintenance of Insulating Oil in Equipment

PC57.12.36 - Standard Requirements for Liquid-Immersed Distribution Substation Transformers

PC57.139 - Guide for Dissolved Gas Analysis in Transformer Load Tap Changers

PC57.140 - Evaluation and reconditioning of Liquid Immersed Power Transformers

(Note: D18 submitted to RevCom on 9/5/06, pending review and approval in December, 2006.)

PC57.142 - A Guide To Describe The Occurrence And Mitigation Of Switching Transients Induced By Transformer-Breaker Interaction

PC57.143 - Guide for Application for Monitoring Equipment to Liquid-Immersed Transformers and Components

PC57.32 - Standard Requirements, Terminology and Test Procedures for Neutral Grounding Devices

STANDARDS REVIEW COMMITTEE (RevCom)

REVISED STANDARDS

PC57.12.00/D3 (PE/TR) Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers

Recommendation: APPROVE

PC57.12.37/D11d Standard for the Electronic Reporting of Distribution Transformer Test Data

Recommendation: APPROVE

PC57.12.40/D4 Standard Requirements for Secondary Network Transformers, Subway and Vault Types (Liquid-Immersed)

Recommendation: APPROVE [Vote: Yes=7; No=0; Abstain=1 (Thompson)]

PC57.12.90/D3 Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers

Recommendation: APPROVE

REAFFIRMATION OF EXISTING STANDARDS

638-1992 (R1999) IEEE Standard for Qualification of Class 1E Transformers for Nuclear Power Generating Stations

Recommendation: APPROVE [Vote: Yes=7; No=0; Abstain=1 (Thompson)]

1276-1997 IEEE Guide for the Application of High-Temperature Insulation Materials in Liquid-Immersed Power Transformers

Recommendation: APPROVE [Vote: Yes=7; No=0; Abstain=1 (Thompson)]

C57.12.70-2000 IEEE Standard Terminal Markings and Connections for Distribution and Power Transformers

Recommendation: APPROVE [Vote: Yes=7; No=0; Abstain=1 (Thompson)]

C57.120-1991 (R2000) IEEE Loss Evaluation Guide for Power Transformers and Reactors

Recommendation: APPROVE

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

Recommendation: APPROVE [Vote: Yes=7; No=0; Abstain=1 (Thompson)]

TRIAL-USE UPGRADE TO FULL-USE

C57.13.5-2003 IEEE Trial-Use Standard of Performance and Test Requirements for Instrument Transformers of a Nominal System Voltage of 115 kV and Above

[No negative comments received during trial-use period, which is now complete; Sponsor requests elevation of status to full-use]

Recommendation: Elevate status of standard from trial-use to full-use. Editorial staff will be notified to implement the necessary changes. IEEE Standards Dept. database will be updated to reflect that the expiration date of the standard will coincide with the expiration date of the PAR for revision, which is December 2009.

STANDARDS DUE TO EXPIRE AT THE END OF 2006

The following projects will be recommended for administrative withdrawn at the December 5, 2006 IEEE-SA Standards Board meeting.

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

1388-2000 IEEE Standard for the Electronic Reporting of Transformer Test Data

(Note: Recommend withdrawal, replaced by C57.12.37-2006)

C57.12.59-2001 IEEE Guide for Dry-Type Transformer Through-Fault Current Duration

(Note: Reaffirmation package submitted to RevCom pending review and approval at December, 06 meeting)

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

(Note: Requested new PAR for Revision and withdraw PAR for Amendment.)

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

(Note: Reaffirmation ballot invitation started 10/18/2006)

C57.94-1982 (R2000) IEEE Recommended Practice for Installation, Application, Operation, and Maintenance of Dry-Type General Purpose Distribution and Power Transformers

(Note: Reaffirmation package submitted to RevCom pending review and approval at December, 06 meeting)

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

(Note: Reaffirmation ballot comment resolution)

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

(Note: Reaffirmation ballot comment resolution)

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

(Note: Reaffirmation ballot invitation started 10/18/2006)

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)

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

(Note: WG has not submitted PAR for revision, recommend withdrawal)

NEW myBallot BALLOT STATUS – 2005, SORTED BY INVITATION NUMBER (As of 10/18/2006)

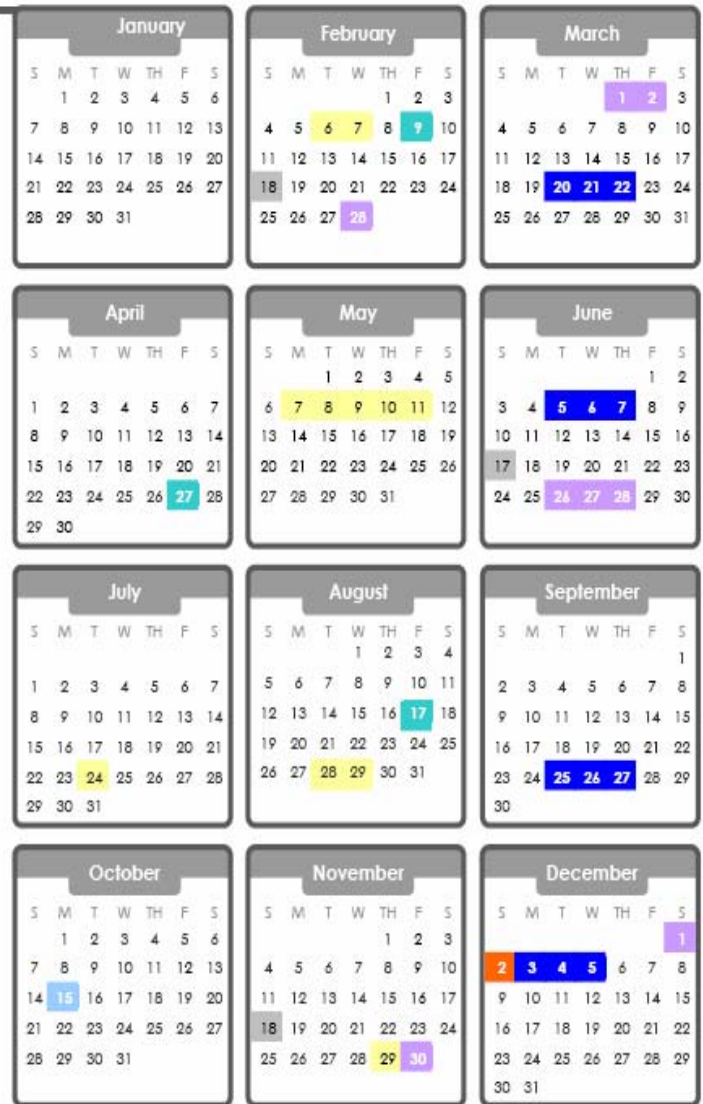
PAR or Standards #	Stage	Ballot Close Date	# of Balloters	Response Rate %	Approval Rate %	Abstain Rate %	# Comments
1538-2000	Comment Resolution	12/9/2005	100	76.0%	98.7%	1.3%	14
C57.136-2000	Submitted To Revcom	7/21/2005	78	75.6%	100.0%	3.4%	5
PC57.19.03-1996_Cor_1-20xx	Submitted To Revcom	10/14/2005	59	86.4%	100.0%	7.8%	1
PC57.12.01	Submitted To Revcom	10/6/2005	129	84.5%	93.1%	5.5%	14
C57.12.59-2001	Submitted To Revcom	9/3/2006	74	77.0%	100.0%	3.5%	7
C57.94-1982	Submitted To Revcom	9/17/2006	117	78.6%	92.2%	1.1%	3
PC57.106	Submitted To Revcom	10/16/2006	139	88.5%	95.0%	1.6%	1
C57.121-1998	Failed	3/2/2006	105	67.6% / 8	100.0%	2.8%	8
PC57.130	Comment Resolution	7/26/2006	116	85.3%	88.5%	3.0%	60
1538-2000	Submitted To Revcom	9/17/2005	100	76.0%	98.7%	1.3%	14
PC57.142	Comment Resolution	9/8/2005	145	79.3%	79.4%	5.2%	439
C57.105-1978	Comment Resolution	2/23/2006	139	77.0%	95.2%	2.8%	102
C57.109-1993	Comment Resolution	2/28/2006	122	76.2%	98.9%	3.2%	5
PC57.140	Submitted To Revcom	8/4/2006	157	88.5%	98.5%	6.5%	13
C57.120-1991	Submitted To Revcom	7/27/2005	131	75.6%	100.0%	6.1%	5
PC57.93	Ballot	11/3/2006	154	31.2% / 68	93.3%	6.2%	39
638-1992	Submitted To Revcom	12/9/2005	49	81.6%	94.7%	5.0%	1
C57.12.70-2000	Submitted To Revcom	2/24/2006	150	84.7%	99.2%	0.8%	3
C57.116-1989	Submitted To Revcom	10/4/2005	124	75.8%	98.9%	3.2%	33
PC57.12.36	Comment Resolution	3/17/2006	106	77.4%	87.3%	2.4%	56
PC57.127	Comment Resolution	7/29/2006	95	81.1%	98.6%	10.4%	75
C57.134-2000	Submitted To Revcom	12/15/2005	96	75.0%	98.6%	4.2%	26
C57.19.01-2000	Submitted To Revcom	10/23/2005	79	81.0%	93.7%	1.6%	1

2006 STANDARDS BOARD MEETINGS SCHEDULE AND SUBMITTAL DEADLINES

IEEE Standards Association Meeting Schedule

2007

NESCOM AND REVCOM MEET ON THE SECOND DAY OF STB COMMITTEE MEETINGS	
JANUARY	JULY
FEBRUARY	24 SA-CAG - TELECONFERENCE
06 SA-CAG MEETING, NEW YORK CITY	AUGUST
07 SA-CAG MEETING, NEW YORK CITY	17 DRAFT AND PAR SUBMISSION DEADLINE
09 DRAFT AND PAR SUBMISSION DEADLINE	28 SA-CAG MEETING - OTTAWA
18 BOD/ExCOM - UNIVERSAL CITY, CA	29 SA-CAG MEETING - OTTAWA
28 SA-BOG CAUCUS - PISCATAWAY, NJ	
MARCH	SEPTEMBER
01 SA-BOG MEETING - PISCATAWAY, NJ	25 STB COMMITTEE MTGS - PISCATAWAY, NJ
02 SA-BOG MEETING - PISCATAWAY, NJ	26 STB COMMITTEE MTGS - PISCATAWAY, NJ
20 STB COMMITTEE MTGS - PISCATAWAY, NJ	27 STANDARDS BOARD MTG - PISCATAWAY, NJ
21 STB COMMITTEE MTGS - PISCATAWAY, NJ	
22 STANDARDS BOARD MTG - PISCATAWAY, NJ	OCTOBER
APRIL	15 DRAFT AND PAR SUBMISSION DEADLINE
27 DRAFT AND PAR SUBMISSION DEADLINE	
MAY	NOVEMBER
07 SA-CAG ACTIVITIES, TUNISIA	18 BOD/ExCOM - BOSTON, MA
08 SA-CAG ACTIVITIES, TUNISIA	29 SA-CAG MTG - Hallandale Beach, FL
09 SA-CAG ACTIVITIES, TUNISIA	30 SA-CAG/SA-BOG CAUCUS - Hall. Beach, FL
10 SA-CAG ACTIVITIES, TUNISIA	
11 SA-CAG ACTIVITIES, TUNISIA	
JUNE	DECEMBER
05 STB COMMITTEE MTGS - PISCATAWAY, NJ	01 SA BOG MTG - Hallandale Beach, FL
06 STB COMMITTEE MTGS - PISCATAWAY, NJ	02 SA AWARDS CEREMONY - Hallandale Beach, FL
07 STANDARDS BOARD MTG - PISCATAWAY, NJ	03 STB COMMITTEE MTGS - Hallandale Beach, FL
17 BOD/ExCOM - PHILADELPHIA, PA	04 STB COMMITTEE MTGS - Hallandale Beach, FL
24 SA-BOG CAUCUS - PISCATAWAY, NJ	05 STANDARDS BOARD MTG - Hall. Beach, FL
27 SA-BOG MTG - PISCATAWAY, NJ	
28 SA-BOG MTG - PISCATAWAY, NJ	



11 October 2006

Meeting Dates

March 20, 2007
June 5, 2007
September 25, 2007
December 3, 2007

Deadline for Submittal of PAR¹ or Draft Standard²

February 9, 2007
April 27, 2007
August 17, 2007
October 15, 2007

¹ A PAR must be sent by the Working Group Chair to the NesCom administrator, Sherry Hampton, before the stated deadline to be considered at the next Standards board Meeting. Phone +1 732 562 6003, FAX +1 732 875 0695, email: s.hampton@ieee.org
For current PAR form: https://standards.ieee.org/cgi-bin/NesCOM/myP_par?start.
Target Extension Request form: <http://standards.ieee.org/guides/par/extension.rtf>

² Draft Standards must be submitted by the Working Group Chair to the RevCom administrator, David L. Ringle, before the stated deadline to be considered at the next Standards board Meeting Phone +1 732 562 3806, FAX: +1 732 875 0524, email: d.ringle@ieee.org

CURRENT LIST OF ALL OPEN STANDARDS PROJECT (as of 10/17/2006)

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

Only PARs submitted electronically and approved since the December 1998 Standards Board meeting are listed
(There are currently 46 active PAR)

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

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

[PC57.12.20](#) 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](#) Standard for Submersible Single-Phase Transformers; 167kVA and Smaller; High-Voltage 25 000 Volts and Below; Low Voltage 600 Volts and Below

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

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

[PC57.12.34](#) 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](#) Standard for Bar Coding for Distribution Transformers and Step-Voltage Regulators

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

[PC57.12.38](#) 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

[PC57.12.51](#) 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

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

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

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

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

[PC57.12.91a](#) IEEE Standard Test Code for Dry-Type Distribution and Power Transformers – Amendment 1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[PC57.130](#) 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](#) Standard Requirements for Tap Changers

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

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

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

[PC57.142](#) A Guide To Describe The Occurrence And Mitigation Of Switching Transients Induced By Transformer-Breaker Interaction

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

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

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

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

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

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