



Standards Report

To: Members of Transformers Committee March 23, 2020

From: Jim Graham, Standards Coordinator

Executive Summary

This report covers Transformers Committee Standards activity from September 22, 2019 through March 6, 2020. During this time four revisions to existing standards were approved by the Standards Association Board.

During this same period, the Standards Association Board approved six PARs for revisions; one PAR for modification, three PAR extensions, and one entity PAR for amendment.

Work on PC57.21, which expired in 2018, is in ballot comment resolution and will be submitted to RevCom later this year. PC57.124 expired in 2019 but is still in draft development. C57.18.10 also expired in 2019 but has started the ballot process.

Eleven standards will expire in 2020. Three of these standards are in ballot comment resolution. Two of these standards have no active PARs. The others are in draft development.

Twelve PARs are scheduled to expire in 2020. Three of these activities are in ballot comment resolution, two are in ballot, one is starting the ballot process, and six are in draft development.

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I. Standards Approved

(since March 22, 2019)

Approved New Transformer Standards

(None)

Approved Revisions to Transformer Standards

(All expire 31 Dec 2028)

- P1276** Guide for the Application of High-Temperature Insulation Materials in Liquid-Immersed Distribution, Power and Regulating Transformers
- PC57.12.60** Standard Test Procedure for Thermal Evaluation of Insulation Systems for Dry-Type Power and Distribution Transformers
- PC57.13.5** Standard for Performance and Test Requirements for Instrument Transformers of a Nominal System Voltage of 115 kV and Above
- PC57.123** Guide for Transformer Loss Measurement

Approved Standards Amendments & Corrigenda

(None)

Standard Approvals Pending

(None)

II. PARs Approved

(since March 22, 2019)

Approved PARs – Withdrawals

(None)

Approved PARs for New Projects

(None)

Approved PARs for Revision of Standards

(All expire as noted)

- PC57.116** Guide for Transformers Directly Connected to Generators **(expires 2023)**
- PC57.12.28** Standard for Pad-Mounted Equipment--Enclosure Integrity **(expires 2024)**
- PC57.12.29** Standard for Pad-Mounted Equipment--Enclosure Integrity for Coastal Environments **(expires 2024)**
- PC57.12.52** Standard for Sealed Dry-Type Distribution and Power Transformers **(expires 2024)**
- C57.146** Guide for Interpretation of Gases Generated in Silicone-Immersed Transformers **(expires 2024)**
- C57.163** Guide for Establishing Power Transformer Capability while under Geomagnetic Disturbances **(expires 2024)**

Approved PAR Extensions

(Expires as noted)

- PC57.13.8** Standard Requirements for Station Service Voltage Transformers **(expires 2021)**
- PC57.12.60** Standard Test Procedure for Thermal Evaluation of Insulation Systems for Dry-Type Power and Distribution Transformers **(expires 2020)**
- PC57.160** Guide for the Electrical Measurement of Partial Discharges in High Voltage Bushings and Instrument Transformers **(expires 2020)**

Approved PAR Modifications

(None)

Approved PARs for Amendments & Corrigenda

PC57.93a Cold Start of Power Transformers filled with Natural Ester Fluids (Entity project)
(expires 2023 - does not affect the expiration date of C57.93)

PAR Approvals Pending

(None)

III. 2019 IEEE Standards Board Meeting Schedule

The Standards Board normally has four board meetings per year and three teleconference meetings. The IEEE 2020 Standards Association meetings schedule is appended to this report.

Deadlines for 2020 Standards Board Submissions:

Standards Board Meeting	Submission Deadline
March 3-5, 2020	24 January, 2020
April 15, 2020 (RevCom teleconference) April 29, 2020 (NesCom teleconference)	13 March, 2020
June 1-3, 2020	23 April, 2020
September 24, 2020 (teleconference)	14 August, 2020
December 1-3, 2020	13 October, 2020

Please Note: The next submission deadline is 24 April, 2020 for the June 2020 NesCom /RevCom teleconference agendas.

Anything that expires at the end of 2020 must be submitted to Standards Board (PARs to NESCOM, standards to REVCOM) by 13 October, 2020

IV. Transformers Committee Ballot Status (as of Mar 6, 2020)

PAR Number	Project Type	Approval PAR Date	PAR Expiration	Invitation Close	Ballot Close	Project Status
Dielectric Test						
PC57.160	New	15 Jun 2017	31 Dec 2020	30 Nov 2018	09 Jan 2019	SA Ballot: Comment Resolution
Distribution Transformers						
PC57.12.30	Revision	08 Feb 2019	31 Dec 2023	15 Jan 2020	29 Feb 2020	SA Ballot: Comment Resolution
PC57.12.31	Revision	08 Feb 2019	31 Dec 2023	15 Jan 2020	29 Feb 2020	SA Ballot: Comment Resolution
Dry Type Transformers						
PC57.12.01	Revision	12 May 2016	31 Dec 2020	01 Mar 2020	02 Apr 2020	SA Ballot: Ballot
PC57.12.91	Revision	03 Mar 2016	31 Dec 2020	01 Mar 2020	02 Apr 2020	SA Ballot: Ballot
HVDC Converter Transformers & Smoothing Reactors						
P1277	Revision	17 Feb 2017	31 Dec 2021	04 Oct 2019	05 Mar 2020	SA Ballot: Comment Resolution
Performance Characteristics						
PC57.18.10	Revision	30 Jun 2016	31 Dec 2020	21 Mar 2020	NA	SA Ballot: Invitation
PC57.21	Revision	21 Aug 2014	31 Dec 2020	19 Dec 2018	27 Mar 2019	SA Ballot: Comment Resolution
PC57.32a	Amendment	17 Feb 2017	31 Dec 2021	05 Apr 2020	05 Mar 2020	RevCom Agenda (15 Apr 2020)
Power Transformers						
PC57.148	Revision	30 Jun 2016	31 Dec 2020	16 Oct 2019	23 Nov 2019	SA Ballot: Comment Resolution
Standards						
PC57.12.70	Revision	14 Jun 2018	31 Dec 2022	12 Jan 2020	29 Feb 2020	SA Ballot: Comment Resolution

V. Transformers Committee Active PAR Status

(as of Mar 6, 2020)

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Bushings						
PC57.19.00	Peter Zhao	Revision	Standard General Requirements and Test Procedure for Power Apparatus Bushings	15 Feb 2018	31 Dec 2022	Draft Development
PC57.19.02	Stephen Shull	New	Standard for the Design and Performance Requirements of Bushings Applied to Liquid Immersed Distribution Transformers	05 Feb 2016	31 Dec 2020	Draft Development
PC57.19.100	Thomas	Revision	Guide for Application of Power Apparatus Bushings	21 May 2019	31 Dec 2023	Draft Development
Dielectric Test						
PC57.113	Ali Naderian	Revision	Recommended Practice for Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors	06 Dec 2017	31 Dec 2021	Draft Development
PC57.12.200	Jahromi	New	Guide for the Frequency Domain Spectroscopy Measurement of Transformer Bushings	27 Sep 2018	31 Dec 2022	Draft Development
PC57.160	Jun Deng	New	Guide for the Electrical Measurement of Partial Discharges in High Voltage Bushings and Instrument Transformers	15 Jun 2017	31 Dec 2020	SA Ballot: Comment Resolution
PC57.168	Thang	New	Guide for Low Frequency Dielectric Testing for Distribution, Power and Regulating Transformers	14 Jun 2018	31 Dec 2022	Draft Development
PC57.98	Hochanh	Revision	Guide for Transformer Impulse Tests	27 Sep 2018	31 Dec 2022	Draft Development

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Distribution Transformers						
PC57.12.20	Alan Traut	Revision	Standard for Overhead-Type Distribution Transformers 500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 7970/13 800Y V and Below	08 Feb 2019	31 Dec 2023	Draft Development
PC57.12.30	Daniel Mulkey	Revision	Standard for Pole-Mounted Equipment--Enclosure Integrity for Coastal Environments	08 Feb 2019	31 Dec 2023	SA Ballot: Comment Resolution
PC57.12.31	Daniel Mulkey	Revision	Standard for Pole-Mounted Equipment--Enclosure Integrity	08 Feb 2019	31 Dec 2023	SA Ballot: Comment Resolution
PC57.12.34	Stephen Shull	Revision	Standard Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers, 10 MVA and Smaller; High-Voltage, 34.5 kV Nominal System Voltage and Below; Low-Voltage, 15 kV Nominal System Voltage and Below	22 Sep 2016	31 Dec 2020	Draft Development
PC57.12.35	Rhett Chrysler	Revision	Standard for Information Coding for Distribution Transformers and Step-Voltage Regulators	13 Jun 2019	31 Dec 2023	Draft Development
PC57.12.38	Ali Ghafourian	Revision	Standard for Pad-Mounted-Type, Self-Cooled, Single-Phase Distribution Transformers 250 kVA and Smaller: High Voltage, 34 500 GrdY/19 920 V and Below; Low Voltage, 480/240 V and Below	28 Sep 2017	31 Dec 2021	Draft Development
PC57.167	Gary Hoffman	New	Guide for Monitoring Distribution Transformers	14 Jun 2018	31 Dec 2022	Draft Development

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Dry Type Transformers						
PC57.12.01	Casey Ballard	Revision	Standard for General Requirements for Dry-Type Distribution and Power Transformers	12 May 2016	31 Dec 2020	SA Ballot: Ballot
PC57.12.91	David Walker	Revision	Standard Test Code for Dry-Type Distribution and Power Transformers	03 Mar 2016	31 Dec 2020	SA Ballot: Ballot
PC57.124	Tom Prevost	Revision	Recommended Practice for the Detection of Partial Discharge and the Measurement of Apparent Charge in Dry-Type Transformers	15 Jun 2017	31 Dec 2021	Draft Development
PC57.16	J. Arturo Delrio	Revision	Standard for Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors	05 Feb 2016	31 Dec 2020	Draft Development
HVDC Converter Transformers & Smoothing Reactors						
P1277	Klaus Pointer	Revision	Standard General Requirements and Test Code for Dry-Type and Oil-Immersed Smoothing Reactors and for Dry-Type Converter Reactors for DC Power Transmission	17 Feb 2017	31 Dec 2021	SA Ballot: Comment Resolution
Insulating Fluids						
PC57.166	Tom Prevost	New	Guide for Acceptance and Maintenance of Insulating Liquids in Transformers and Related Equipment	08 Mar 2018	31 Dec 2022	Draft Development
Insulation Life						
PC57.100	Roger Wicks	Revision	Standard Test Procedure for the Thermal Evaluation of Insulation Systems for Liquid-Immersed Distribution, Power and Regulating Transformers	30 Oct 2018	31 Dec 2022	Draft Development
PC57.154	Richard Marek	Revision	Standard for Liquid-Immersed Transformers Designed to Operate at Temperatures Above Conventional Limits Using High-Temperature Insulation Systems.	27 Sep 2018	31 Dec 2022	Draft Development

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Insulation Life						
PC57.162	Tom Prevost	New	Guide for the Interpretation of Moisture Related Parameters in Dry, Gas Insulated and Liquid Immersed Transformers and Reactors	23 Aug 2013	31 Dec 2020	Draft Development
PC57.165	Phillip McClure	New	Guide for Temperature Measurements for Liquid Immersed Transformers and Reactors	17 Feb 2017	31 Dec 2021	Draft Development
PC57.169	Scott Digby	Revision	Guide for Determination of Maximum Winding Temperature Rise in Liquid-Immersed Transformers	21 Mar 2019	31 Dec 2023	Draft Development
PC57.91	David Wallach	Revision	Guide for Loading Mineral-Oil-Immersed Transformers and Step-Voltage Regulators	28 Sep 2017	31 Dec 2021	Draft Development
Instrument Transformers						
PC57.13 2016/Cor	Ross McTaggart	Corrigendum	Standard Requirements for Instrument Transformers - Corrigendum 1	21 Mar 2019	31 Dec 2023	Draft Development
PC57.13.2	Thomas Sizemore	Revision	Standard for Conformance Test Procedure for Instrument Transformers	06 Dec 2017	31 Dec 2021	Draft Development
P63253-5713-8	David Wallace	New	Standard Requirements for Station Service Voltage Transformers	21 Mar 2019	31 Dec 2021	Draft Development
PC57.13.9	Zoltan Roman	New	Standard for Power-Line Carrier Coupling Capacitors and Coupling Capacitor Voltage Transformers	23 Mar 2017	31 Dec 2021	Draft Development
Performance Characteristics						
PC57.142	James McBride	Revision	Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformers, Switching Device, and System Interaction	23 Mar 2017	31 Dec 2021	Draft Development
PC57.149	Charles Sweetser	Revision	Guide for the Application and Interpretation of Frequency Response Analysis for Oil-Immersed Transformers	14 Jun 2018	31 Dec 2022	Draft Development
PC57.164	Sanjay Patel	New	Guide for Establishing Short Circuit Withstand Capabilities of Liquid Immersed Power Transformers, Regulators, and Reactors	30 Jun 2016	31 Dec 2020	Draft Development

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Performance Characteristics						
PC57.18.10	Sheldon Kennedy	Revision	Standard Practices and Requirements for Semiconductor Power Rectifier Transformers	30 Jun 2016	31 Dec 2020	SA Ballot: Invitation
PC57.21	Sanjib Som	Revision	Standard Requirements, Terminology, and Test Code for Shunt Reactors Rated Over 500 kVA	21 Aug 2014	31 Dec 2020	SA Ballot: Comment Resolution
PC57.32a	Sergio Panetta	Amendment	Standard for Requirements, Terminology, and Test Procedures for Neutral Grounding Devices Amendment: Neutral Grounding Resistor Section	17 Feb 2017	31 Dec 2021	RevCom Agenda (15 Apr 2020)
PC57.32.10	Lijie Ding	New	Guide for the Selection of Neutral-Grounding Devices for High Voltage Direct Current (HVDC) Converter Transformers	30 Oct 2018	31 Dec 2022	Draft Development
Power Transformers						
P60214-1-57-131	Craig Colopy	New	Standard Requirements for Tap Changers	07 Dec 2016	31 Dec 2020	Draft Development
PC57.116	Weijun Li	Revision	Guide for Transformers Directly Connected to Generators	07 Nov 2019	31 Dec 2023	Draft Development
PC57.143	P. Michael Spurlock	Revision	Guide for Application of Monitoring Equipment to Liquid-Immersed Transformers and Components	17 Feb 2017	31 Dec 2021	Draft Development
PC57.148	Joe Watson	Revision	Standard for Control Cabinets for Power Transformers	30 Jun 2016	31 Dec 2020	SA Ballot: Comment Resolution
PC57.150	Greg Anderson	Revision	Guide for the Transportation of Transformers and Reactors Rated 10,000 kVA or Higher	23 Mar 2017	31 Dec 2021	Draft Development
PC57.170	Kumar Mani	New	Guide for the Condition Assessment of Liquid Immersed Transformers, Reactors and Their Components	05 Sep 2019	31 Dec 2023	Draft Development

PAR Number	WG Chair	Project Type	Project Title	PAR Approval	PAR Expiration	Project Status
Standards						
PC57.12.00	Steve Snyder	Revision	Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers	17 Feb 2017	31 Dec 2021	Draft Development
PC57.12.90	Stephen Antosz	Revision	Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers	06 Dec 2017	31 Dec 2021	Draft Development
PC57.12.70	Jason Varnell	Revision	Standard for Standard Terminal Markings and Connections for Distribution and Power Transformers	14 Jun 2018	31 Dec 2022	SA Ballot: Comment Resolution
PC57.12.80	Clair Claiborne	Revision	Standard Terminology for Power and Distribution Transformers	23 Mar 2017	31 Dec 2021	Draft Development
PC57.152	Marcos Ferreira	Revision	Guide for Diagnostic Field Testing of Liquid-Filled Power Transformers, Regulators, and Reactors	13 Jun 2019	31 Dec 2023	Draft Development
Subsurface Transformers & Network Protectors						
PC57.12.24	Giuseppe Temin	Revision	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	08 Feb 2019	31 Dec 2023	Draft Development
PC57.12.40	David Blew	Revision	Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 600 V and Below; Subway and Vault Types (Liquid Immersed)	21 May 2019	31 Dec 2023	Draft Development
PC57.12.44	Mark Faulkner	Revision	Standard Requirements for Secondary Network Protectors	26 Mar 2015	31 Dec 2021	Draft Development

VI. Transformers Committee Standards Status

(as of Mar 20, 2019)

Standard Expired 2018-2019		11			
Standard /PAR expires 2020					
Standard /PAR expires 2021					
Standard Number	Year	Project Title	SASB Date	Notes	
Bushings		SC Chair: Eric Weatherbee email:eweatherbee@hubbell.com phone: +1 585-768-1272			
C57.19.00	2004	IEEE Standard General Requirements and Test Procedure for Power Apparatus Bushings	31 Dec 2020	Draft Development	
C57.19.01	2017	IEEE Standard for Performance Characteristics and Dimensions for Power Transformer and Reactor Bushings	31 Dec 2027	No active PAR	
65700-19-03	2014	IEC/IEEE International Standard -- Bushings for DC application	31 Dec 2024	No active PAR	
C57.19.04	2018	IEEE Standard for Performance Characteristics and Dimensions for High Current Power Transformer Bushings with Rated Continuous Current in Excess of 5000 A in Bus Enclosures	31 Dec 2028	No active PAR	
C57.19.100	2012	IEEE Guide for Application of Power Apparatus Bushings	31 Dec 2022	Draft Development	
Dielectric Test		SC Chair: Ajith Varghese email: ajith.varghese@spx.com phone: +1 262-442-7197			
C57.113	2010	IEEE Recommended Practice for Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors	31 Dec 2020	Draft Development	

Standard Number	Year	Project Title	SASB Date	Notes
Dielectric Test		SC Chair: Ajith Varghese email: ajith.varghese@spx.com phone: +1 262-442-7197		
C57.127	2018	IEEE Guide for the Detection, Location and Interpretation of Sources of Acoustic Emissions from Electrical Discharges in Power Transformers and Power Reactors	31 Dec 2028	No active PAR
C57.138	2016	IEEE Recommended Practice for Routine Impulse Tests for Distribution Transformers	31 Dec 2026	No active PAR
C57.161	2018	IEEE Guide for Dielectric Frequency Response Test	31 Dec 2028	No active PAR
C57.98	2011	IEEE Guide for Transformer Impulse Tests	31 Dec 2021	Draft Development
Distribution Transformers		SC Chair: Ed Smith email: edsmith@h-jenterprises.com phone: +1 636-677-3421 Ext 324		
C57.12.37	2015	IEEE Standard for the Electronic Reporting of Distribution Transformer Test Data	31 Dec 2025	No active PAR
C57.12.20	2017	IEEE Standard for Overhead-Type Distribution Transformers 500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 7970/13 800Y V and Below	31 Dec 2027	No active PAR
C57.12.28	2014	IEEE Standard for Pad-Mounted Equipment--Enclosure Integrity	31 Dec 2024	Draft Development
C57.12.29	2014	IEEE Standard for Pad-Mounted Equipment--Enclosure Integrity for Coastal Environments	31 Dec 2024	Draft Development
C57.12.39	2017	IEEE Standard for Requirements for Distribution Transformer Tank Pressure Coordination	31 Dec 2027	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Distribution Transformers		SC Chair: Ed Smith email: edsmith@h-jenterprises.com phone: +1 636-677-3421 Ext 324		
C57.12.30	2010	IEEE Standard for Pole-Mounted Equipment--Enclosure Integrity for Coastal Environments	31 Dec 2020	SA Ballot: Comment Resolution
C57.12.31	2010	IEEE Standard for Pole-Mounted Equipment--Enclosure Integrity	31 Dec 2020	SA Ballot: Comment Resolution
C57.12.32	2019	IEEE Standard for Submersible Equipment--Enclosure Integrity	31 Dec 2029	No active PAR
C57.12.34	2015	IEEE Standard Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers, 10 MVA and Smaller; High-Voltage, 34.5 kV Nominal System Voltage and Below; Low-Voltage, 15 kV Nominal System Voltage and Below	31 Dec 2025	Draft Development
C57.12.35	2013	IEEE Standard Bar Coding for Distribution Transformers and Step-Voltage Regulators	31 Dec 2023	Draft Development
C57.12.36	2017	IEEE Standard Requirements for Liquid-Immersed Distribution Substation Transformers	31 Dec 2027	No active PAR
C57.12.38	2014	IEEE Standard for Pad-Mounted-Type, Self-Cooled, Single-Phase Distribution Transformers 250 kVA and Smaller: High Voltage, 34 500 GrdY/19 920 V and Below; Low Voltage, 480/240 V and Below	31 Dec 2024	Draft Development
C57.15	2017	IEEE Approved Draft Standard Requirements, Terminology, and Test Code for Step-Voltage Regulators	31 Dec 2027	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Dry Type Transformers		SC Chair: Casey Ballard email: robert.c.ballard@ieee.org phone: +1 804-383-2473		
259	1999	IEEE Standard Test Procedure for Evaluation of Systems of Insulation for Dry-Type Specialty and General-Purpose Transformers	31 Dec 2020	No active PAR
C57.12.01	2015	IEEE Standard for General Requirements for Dry-Type Distribution and Power Transformers	31 Dec 2025	SA Ballot: Ballot
C57.12.51	2019	IEEE Guide for Mechanical Interchangeability of Ventilated Dry-Type Transformers	31 Dec 2029	No active PAR
C57.12.52	2012	IEEE Standard for Sealed Dry-Type Power Transformers, 501 kVA and Higher, Three-Phase, with High-Voltage 601 to 34500 Volts, Low-Voltage 208Y/120 to 4160 Volts--General Requirements	31 Dec 2022	Draft Development
C57.12.58	2017	IEEE Guide for Conducting a Transient Voltage Analysis of a Dry-Type Transformer Coil	31 Dec 2027	No active PAR
C57.12.59	2015	IEEE Guide for Dry-Type Transformer Through-Fault Current Duration	31 Dec 2025	No active PAR
C57.12.60	2020	IEEE Approved Draft Standard Test Procedure for Thermal Evaluation of Insulation Systems for Dry-Type Power and Distribution Transformers	31 Dec 2030	No active PAR
C57.12.91	2011	IEEE Standard Test Code for Dry-Type Distribution and Power Transformers	31 Dec 2021	Draft Development
C57.124	1991	IEEE Recommended Practice for the Detection of Partial Discharge and the Measurement of Apparent Charge in Dry-Type Transformers	31 Dec 2019	Draft Development
C57.134	2013	IEEE Guide for Determination of Hottest-Spot Temperature in Dry-Type Transformers	31 Dec 2023	No active PAR
C57.16	2011	IEEE Standard for Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors	31 Dec 2021	Draft Development

Standard Number	Year	Project Title	SASB Date	Notes
Dry Type Transformers		SC Chair: Casey Ballard email: robert.c.ballard@ieee.org phone: +1 804-383-2473		
C57.94	2015	IEEE Recommended Practice for Installation, Application, Operation, and Maintenance of Dry-Type Distribution and Power Transformers	31 Dec 2025	No active PAR
C57.96	2013	IEEE Guide for Loading Dry-Type Distribution and Power Transformers	31 Dec 2023	No active PAR
HVDC Converter Transformers & Smoothing Reactors		SC Chair: Ulf Radbrandt email: ulf.radbrandt@se.abb.com phone: +46 70 360 6190		
1277	2010	IEEE Standard General Requirements and Test Code for Dry-Type and Oil-Immersed Smoothing Reactors for DC Power Transmission	31 Dec 2020	SA Ballot: Comment Resolution
60076-57-129	2017	IEC/IEEE International Standard - Power transformers--Part 57-129: Transformers for HVDC applications	31 Dec 2027	No active PAR
Insulating Fluids		SC Chair: Dave Wallach email: david.wallach@duke-energy.com phone: +1 980-373-4167		
C57.104	2019	IEEE Guide for the Interpretation of Gases Generated in Mineral Oil-Immersed Transformers	31 Dec 2029	No active PAR
C57.106	2015	IEEE Guide for Acceptance and Maintenance of Insulating Mineral Oil in Electrical Equipment	31 Dec 2025	No active PAR
C57.111	1989	IEEE Guide for Acceptance of Silicone Insulating Fluid and Its Maintenance in Transformers	31 Dec 2019	No active PAR Allowed to expire
C57.121	1998	IEEE Guide for Acceptance and Maintenance of Less-Flammable Hydrocarbon Fluid in Transformers	31 Dec 2019	No active PAR Allowed to expire

Standard Number	Year	Project Title	SASB Date	Notes
Insulating Fluids		SC Chair: Dave Wallach email: david.wallach@duke-energy.com phone: +1 980-373-4167		
C57.130	2015	IEEE Guide for the Use of Dissolved Gas Analysis Applied to Factory Temperature Rise Tests for the Evaluation of Mineral Oil-Immersed Transformers and Reactors	31 Dec 2025	No active PAR
C57.139	2015	IEEE Guide for Dissolved Gas Analysis in Transformer Load Tap Changers	31 Dec 2025	No active PAR
C57.146	2005	IEEE Guide for Interpretation of Gasses Generated in Silicone-Immersed Transformers	31 Dec 2021	Draft Development
C57.147	2018	IEEE Guide for Acceptance and Maintenance of Natural Ester Insulating Liquid in Transformers	31 Dec 2028	No active PAR
C57.155	2014	IEEE Guide for Interpretation of Gases Generated in Natural Ester and Synthetic Ester-Immersed Transformers	31 Dec 2024	No active PAR
C57.637	2015	IEEE Guide for the Reclamation of Mineral Insulating Oil and Criteria for Its Use	31 Dec 2025	No active PAR
Insulation Life		SC Chair: Sheldon Kennedy email: skennedy@niagaratransformer.com phone: +1 716-896-6500		
1276	2020	IEEE Approved Draft Guide for the Application of High-Temperature Insulation Materials in Liquid-Immersed Distribution, Power and Regulating Transformers	31 Dec 2030	No active PAR
1538 (PC57.169)	2000	IEEE Guide for Determination of Maximum Winding Temperature Rise in Liquid-Filled Transformers	31 Dec 2021	Draft Development
C57.100	2011	IEEE Standard Test Procedure for Thermal Evaluation of Insulation Systems for Liquid-Immersed Distribution and Power Transformers	31 Dec 2021	Draft Development

Standard Number	Year	Project Title	SASB Date	Notes
Insulation Life		SC Chair: Sheldon Kennedy email: skennedy@niagaratransformer.com phone: +1 716-896-6500		
C57.119	2018	IEEE Recommended Practice for Performing Temperature Rise Tests on Liquid-Immersed Power Transformers at Loads Beyond Nameplate Ratings	31 Dec 2028	No active PAR
C57.154	2012	IEEE Standard for the Design, Testing, and Application of Liquid-Immersed Distribution, Power, and Regulating Transformers Using High-Temperature Insulation Systems and Operating at Elevated Temperatures	31 Dec 2022	Draft Development
C57.91	2011	IEEE Guide for Loading Mineral-Oil-Immersed Transformers and Step-Voltage Regulators	31 Dec 2021	Draft Development
Instrument Transformers		SC Chair: Thomas Sizemore email: thomas.sizemore.us@ieee.org phone: +1 252-827-3235		
C57.13	2016	IEEE Standard Requirements for Instrument Transformers	31 Dec 2026	No active PAR
C57.13.2	2005	IEEE Standard for Conformance Test Procedure for Instrument Transformers	31 Dec 2020	Draft Development
C57.13.5	2019	IEEE Standard for Performance and Test Requirements for Instrument Transformers of a Nominal System Voltage of 115 kV and Above	31 Dec 2029	No active PAR
C57.13.6	2005	IEEE Standard for High Accuracy Instrument Transformers	31 Dec 2020	No active PAR
C57.13.7	2018	IEEE Standard for Current Transformers with Maximum Milliampere Secondary Current of 250 mA	31 Dec 2028	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Performance Characteristics		SC Chair: Craig Stiegemeier email: craig.stiegemeier@ieee.org phone: +1 314-679-4568		
60076-16	2018	IEC/IEEE International Standard - Power transformers - Part 16: Transformers for wind turbine applications	31 Dec 2028	No active PAR
C57.105	2019	IEEE Approved Draft Guide for Application of Transformer Connections in Three-Phase Electrical Systems	31 Dec 2029	No active PAR
C57.109	2018	IEEE Guide for Liquid-Immersed Transformers Through-Fault-Current Duration	31 Dec 2028	No active PAR
C57.110	2018	IEEE Recommended Practice for Establishing Liquid Immersed and Dry-Type Power and Distribution Transformer Capability when Supplying Nonsinusoidal Load Currents	31 Dec 2028	No active PAR
C57.120	2017	IEEE Guide for Loss Evaluation of Distribution and Power Transformers and Reactors	31 Dec 2027	No active PAR
C57.123	2019	IEEE Guide for Transformer Loss Measurement	31 Dec 2029	No active PAR
C57.136	2000	IEEE Guide for Sound Level Abatement and Determination for Liquid-Immersed Power Transformers and Shunt Reactors Rated Over 500 kVA	31 Dec 2018	No active PAR
C57.142	2010	IEEE Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformers, Switching Device, and System Interaction	31 Dec 2020	Draft Development
C57.149	2012	IEEE Guide for the Application and Interpretation of Frequency Response Analysis for Oil-Immersed Transformers	31 Dec 2022	Draft Development
C57.158	2017	IEEE Guide for the Application of Tertiary and Stabilizing Windings in Power Transformers	31 Dec 2027	No active PAR
C57.159	2016	IEEE Guide on Transformers for Application in Distributed Photovoltaic (DPV) Power Generation Systems	31 Dec 2026	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Performance Characteristics		SC Chair: Craig Stiegemeier email: craig.stiegemeier@ieee.org phone: +1 314-679-4568		
C57.18.10	1998	IEEE Standard Practices and Requirements for Semiconductor Power Rectifier Transformers	31 Dec 2019	SA Ballot: Invitation
C57.21	2008	IEEE Standard Requirements, Terminology, and Test Code for Shunt Reactors Rated Over 500 kVA	31 Dec 2018	SA Ballot: Comment Resolution
C57.32	2015	IEEE Standard for Requirements, Terminology, and Test Procedures for Neutral Grounding Devices	31 Dec 2025	No active PAR
Power Transformers		SC Chair: Bill Griesacker email: wgriesacker@duqlight.com phone: +21 412-916-6446		
638	2013	IEEE Standard for Qualification of Class 1E Transformers for Nuclear Power Generating Stations	31 Dec 2023	No active PAR
C57.131 (P60214-1-57-131)	2019	IEEE Draft Standard for Tap-Changers - Part 2: Application Guide	31 Dec 2029	Draft Development
C57.131	2012	IEEE Standard Requirements for Tap Changers	31 Dec 2022	
C57.116	2014	IEEE Guide for Transformers Directly Connected to Generators	31 Dec 2024	Draft Development
C57.12.10	2017	IEEE Standard Requirements for Liquid-Immersed Power Transformers	31 Dec 2027	No active PAR
C57.125	2015	IEEE Guide for Failure Investigation, Documentation, Analysis, and Reporting for Power Transformers and Shunt Reactors	31 Dec 2025	No active PAR
60076-57-1202 (C57.135)	2016	IEC/IEEE International Standard Power transformers --Part 57-1202: Liquid immersed phase-shifting transformers	31 Dec 2026	No active PAR
C57.135	2011	IEEE Guide for the Application, Specification, and Testing of Phase-Shifting Transformers	31 Dec 2021	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Power Transformers		SC Chair: Bill Griesacker email: wgriesacker@duqlight.com phone: +21 412-916-6446		
C57.140	2017	IEEE Guide for Evaluation and Reconditioning of Liquid Immersed Power Transformers	31 Dec 2027	No active PAR
C57.143	2012	IEEE Guide for Application for Monitoring Equipment to Liquid-Immersed Transformers and Components	31 Dec 2022	Draft Development
C57.148	2011	IEEE Standard for Control Cabinets for Power Transformers	31 Dec 2021	SA Ballot: Comment Resolution
C57.150	2012	IEEE Guide for the Transportation of Transformers and Reactors Rated 10 000 kVA or Higher	31 Dec 2022	Draft Development
C57.153	2015	IEEE Guide for Paralleling Regulating Transformers	31 Dec 2025	No active PAR
C57.156	2016	IEEE Guide for Tank Rupture Mitigation of Liquid-Immersed Power Transformers and Reactors	31 Dec 2026	No active PAR
C57.157	2015	IEEE Guide for Conducting Functional Life Tests on Switch Contacts Used in Insulating Liquid--Immersed Transformers	31 Dec 2025	No active PAR
C57.17	2012	IEEE Standard Requirements for Arc Furnace Transformers	31 Dec 2022	No active PAR
C57.93	2019	IEEE Approved Draft Guide for Installation and Maintenance of Liquid-Immersed Power Transformers	31 Dec 2029	No active PAR

Standard Number	Year	Project Title	SASB Date	Notes
Standards		SC Chair: Jerry Murphy email: jerry.murphy@ieee.org phone: +1 407-824-4194		
C57.12.00	2015	IEEE Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers	31 Dec 2025	Draft Development
C57.12.90	2015	IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers	31 Dec 2025	Draft Development
C57.12.70	2011	IEEE Standard for Standard Terminal Markings and Connections for Distribution and Power Transformers	31 Dec 2021	SA Ballot: Comment Resolution
C57.12.80	2010	IEEE Standard Terminology for Power and Distribution Transformers	31 Dec 2020	Draft Development
C57.144	2004	IEEE Guide for Metric Conversion of Transformer Standards	31 Dec 2020	No active PAR
C57.152	2013	IEEE Guide for Diagnostic Field Testing of Fluid-Filled Power Transformers, Regulators, and Reactors	31 Dec 2023	Draft Development
C57.163	2015	IEEE Guide for Establishing Power Transformer Capability while under Geomagnetic Disturbances	31 Dec 2025	NesCom Agenda (04 Mar 2020)

Standard Number	Year	Project Title	SASB Date	Notes
Subsurface Transformers & Network Protectors		SC Chair: George Payerle email: gpayerle@roadrunner.com phone: +1 330-908-0418		
C57.12.23	2018	IEEE Standard for Submersible Single-Phase Transformers:250 kVA and Smaller; High Voltage 34 500 GrdY/19 920 V and Below; Low Voltage 600 V and Below	31 Dec 2028	No active PAR
C57.12.24	2016	IEEE 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	31 Dec 2026	No active PAR
C57.12.40	2017	IEEE Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 600 V and Below; Subway and Vault Types (Liquid Immersed)	31 Dec 2027	No active PAR
C57.12.44	2014	IEEE Standard Requirements for Secondary Network Protectors	31 Dec 2024	Draft Development

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Chair: Ed Smith
Pg OC-3

Performance Characteristics

Chair: Rogerio Verdolin
Pg OC-6

Dry Type Transformers

Chair: Casey Ballard
Pg OC-3

Power Transformers

Chair: Bill Griesacker
Pg OC-6

HVDC Converters & Smoothing Reactors

Chair: Ulf Radbrandt
Pg OC-4

Standards

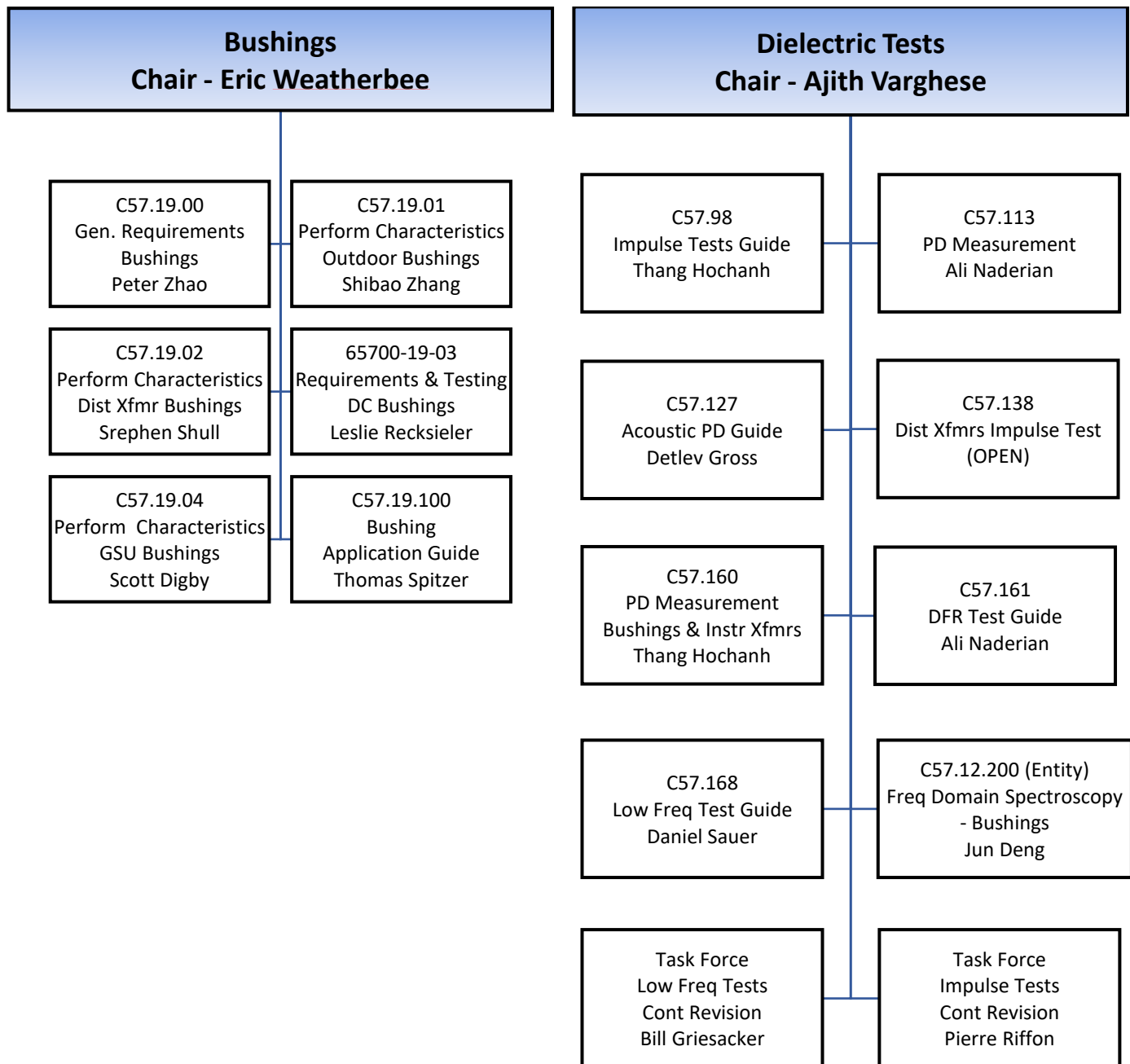
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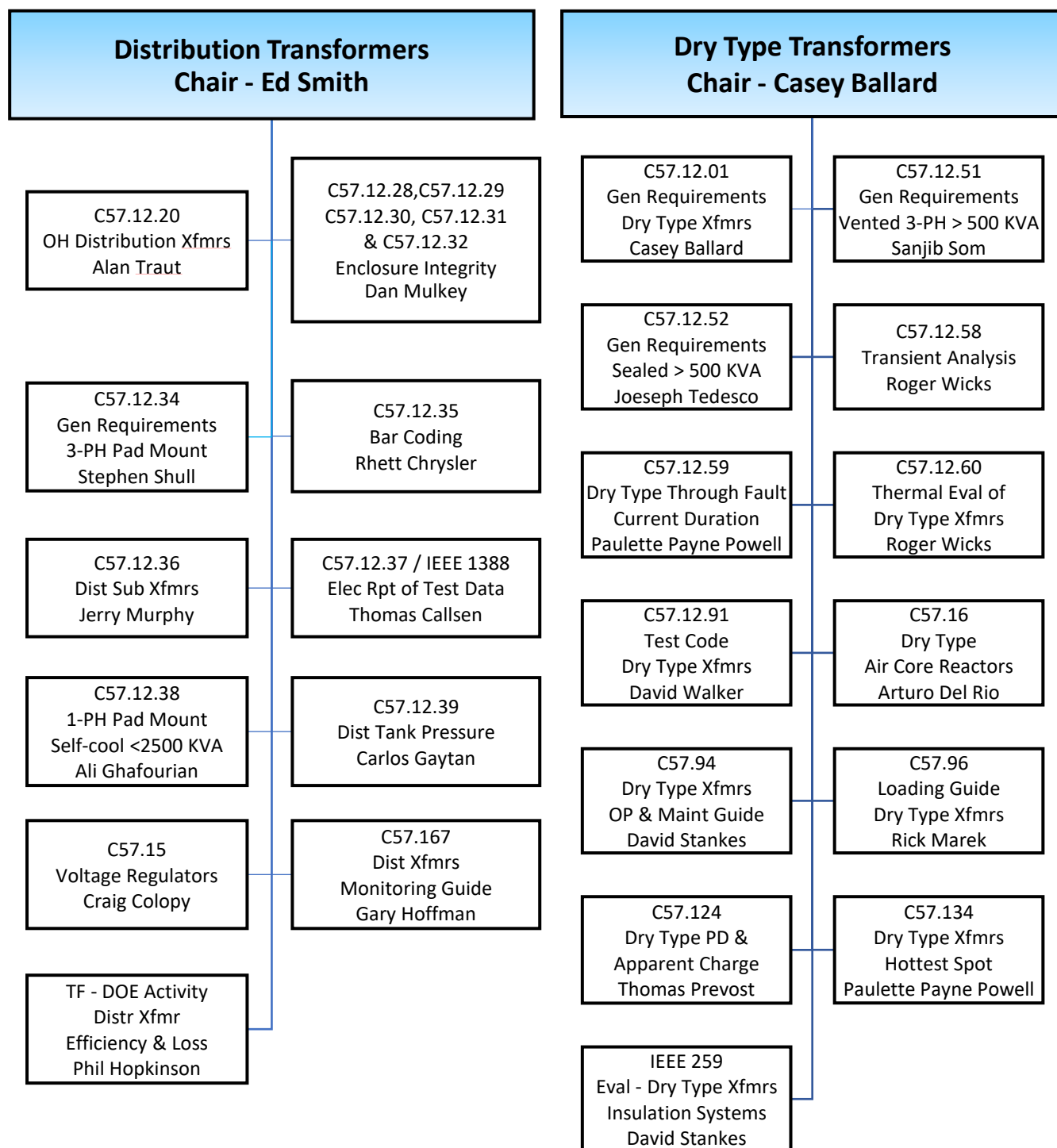
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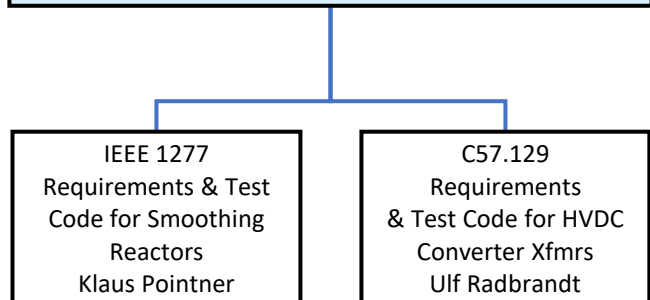
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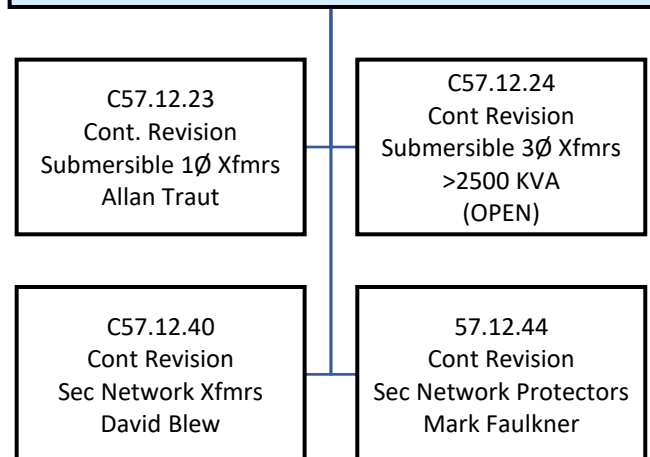




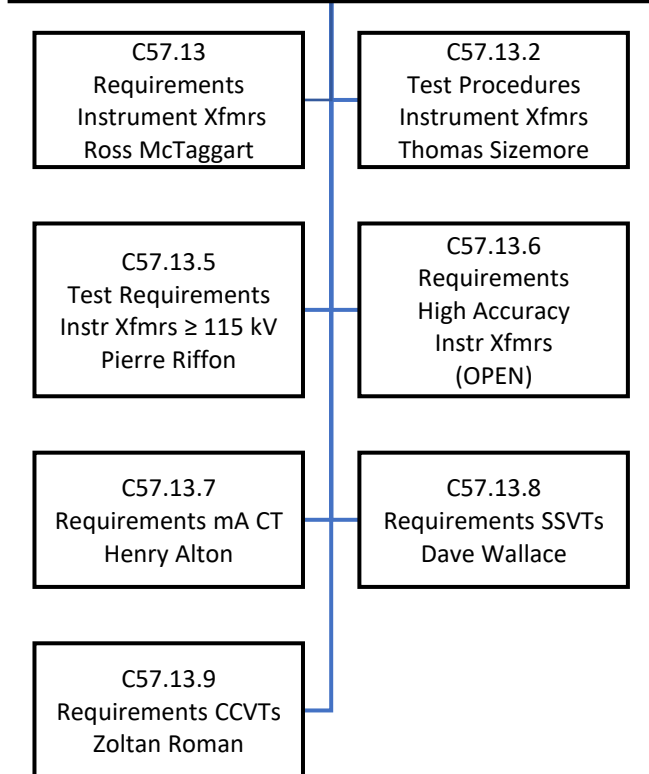
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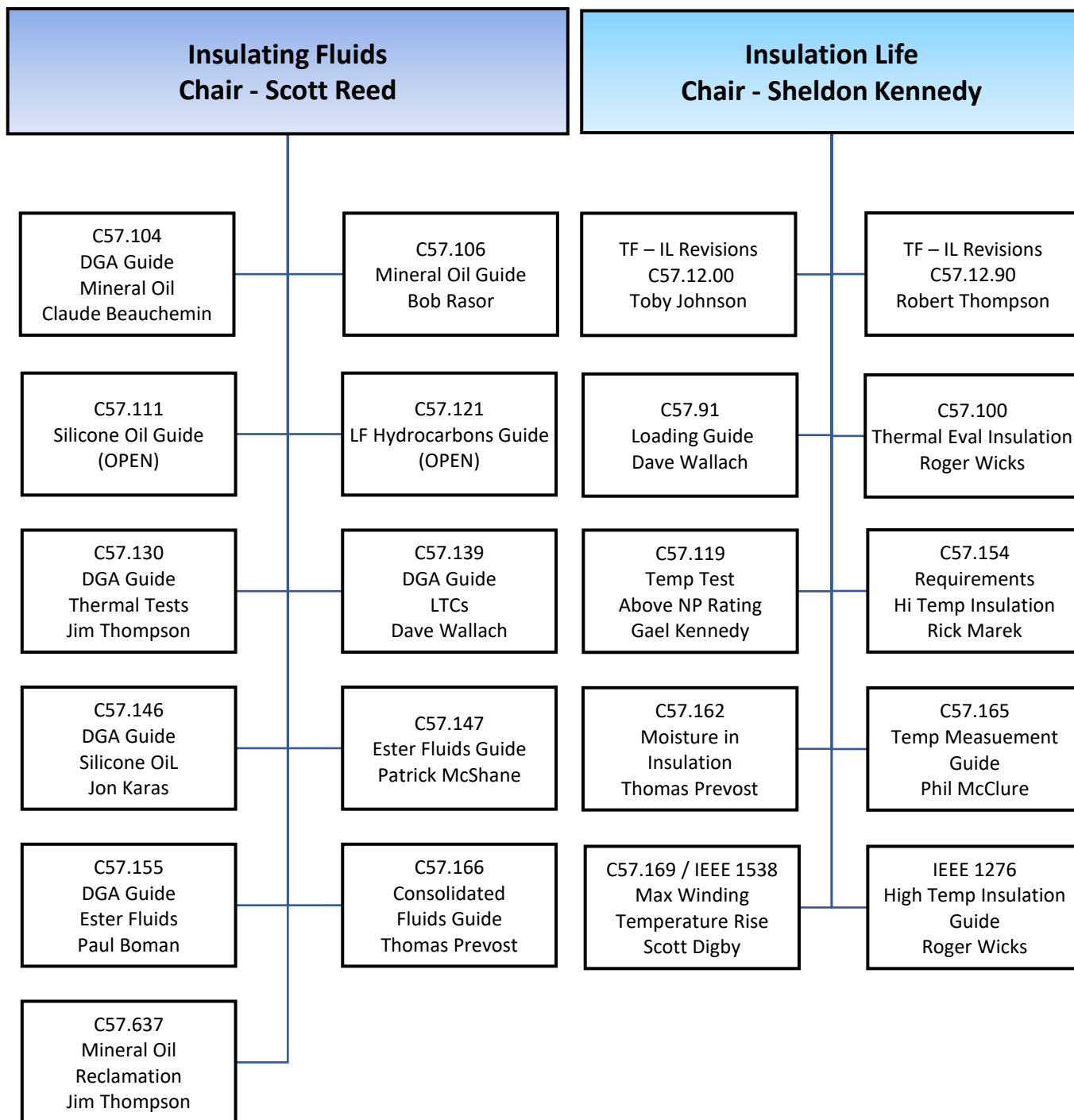


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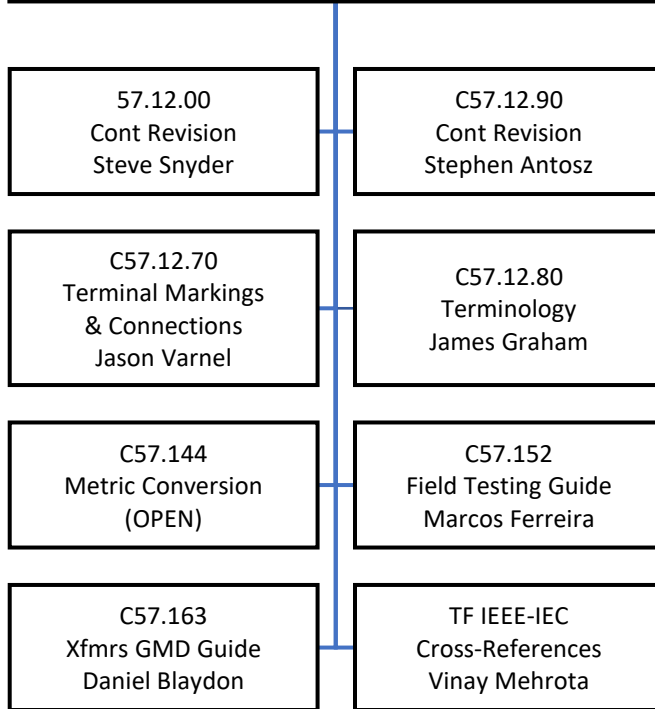
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TF-PCS Revisions C57.12.00 Tauhid Ansari	TF-PCS Revisions C57.12.90 Hakan Sahin
C57.18.10 Semicon Rectifier Xfmrs Sheldon Kennedy	C57.21 Req & Test Code Reactors >500 KVA Sanjib Som
C57.32 Neutral Gnd Devices Sheldon Kennedy	C57.105 Xfmr Connections Guide Rogerio Verdolin
C57.109 Through Fault Current Duration Vinay Mehrota	C57.110 Nonsinusoidal Load Currents Rick Marek
C57.120 Loss Evaluation Guide Rogerio Verdolin	C57.123 Xfmr Loss Measurement Ed teNyenhuus
C57.133 Short Ckt Testing Thomas Prevost	C57.136 Sound Level Abatement Stephen Antosz
C57.142 Sw Transients CB/Xfmr Jim McBride	C57.149 FRA for Oil Immersed Xfmrs Charles Sweetser
C57.158 Tert & Stabilizing Windings Enrique Betancourt	C57.159 DPV Grid Xfmrs Hem Shertukde
C57.164 Short Ckt Withstand Sanjay Patel	60076-16 Wind Farm Xfmrs Phil Hopkinson
C57.32a (Amend) Neutral Gnd Devices Sergio Panetta	C57.32.10 (Entity) HVDC Neutral Devices Hua Zhang

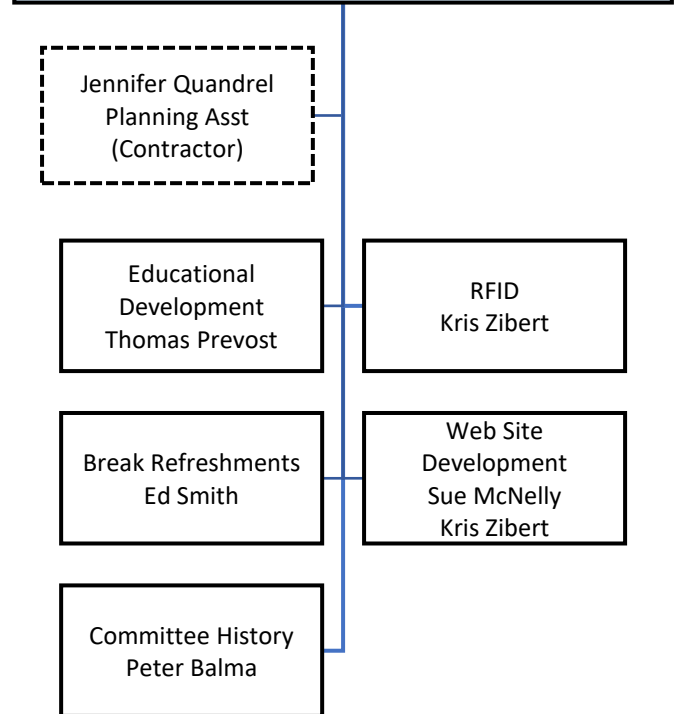
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C57.125 Failure Investigations Wally Binder	C57.135 Phase-Shift Xfmrs Raj Ahuja
C57.140 Reconditioning Power Xfmrs Paul Boman	C57.143 Monitoring Guide Michael Spurlock
C57.148 Cont Cabinet Guide Joe Watson	C57.150 Transportation Guide Greg Anderson
C57.153 Paralleling Guide (OPEN)	C57.156 Tank Rupture Guide Peter Zhao
C57.157 Functional Life Tests - Switch Contacts Phil Hopkinson	C57.170 Xfmr Condition Assessment Kumar Mani
60214-1-57-131 Gen Requirements Tap Changers Craig Colopy	60214-2 Application Guide Tap Changers Craig Colopy
60076-57-1202 Requirements - Phase Shifters Raj Ahuja	IEEE 638 1E Xfmrs at Nuclear Stations Craig Swinderman
C57.93a (Amend) Cold Start - Esters Wei Yao	

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Dry Type Transformers

Chair: Casey Ballard
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Power Transformers

Chair: Bill Griesacker
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HVDC Converters & Smoothing Reactors

Chair: Ulf Radbrandt
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Standards

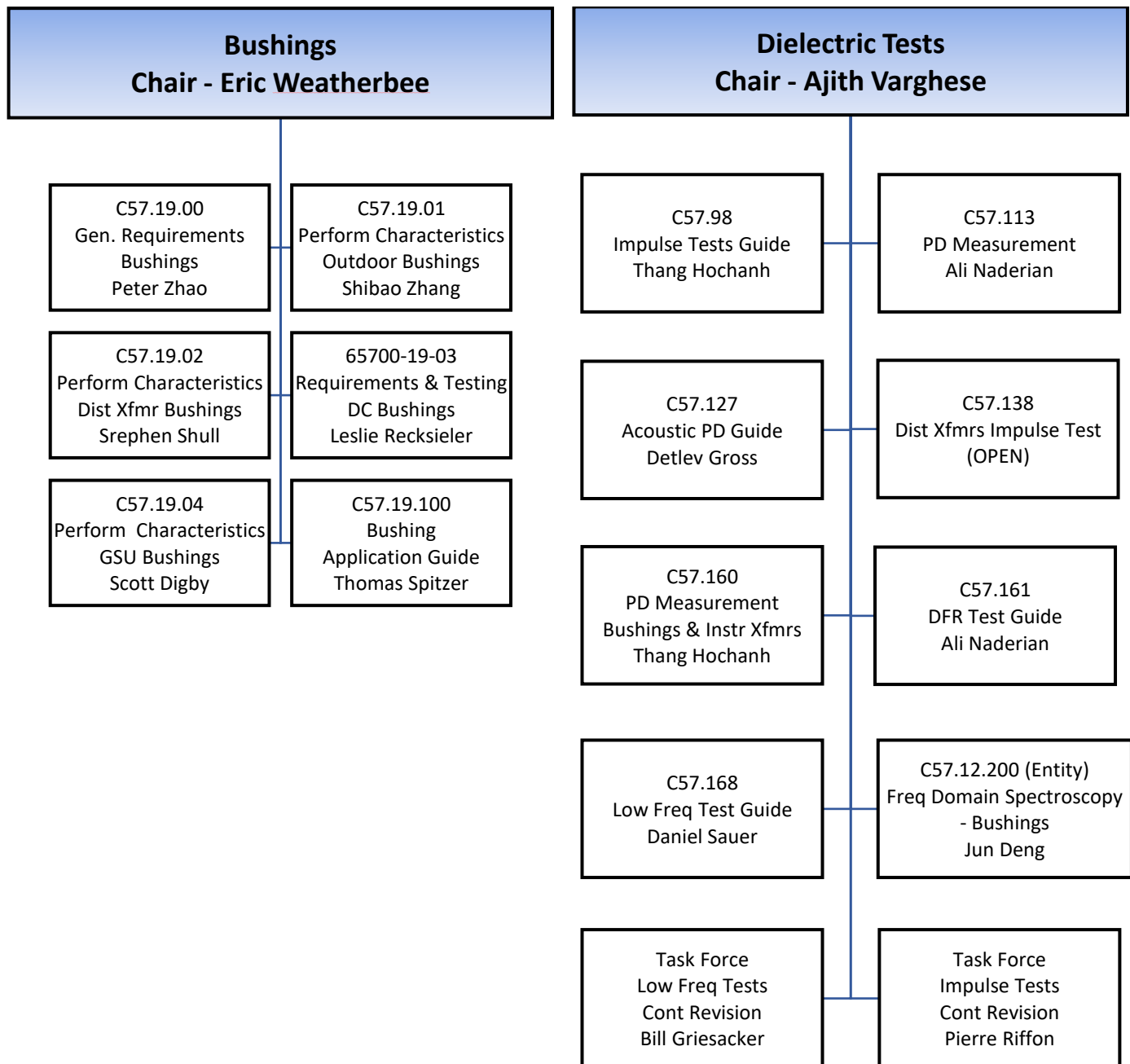
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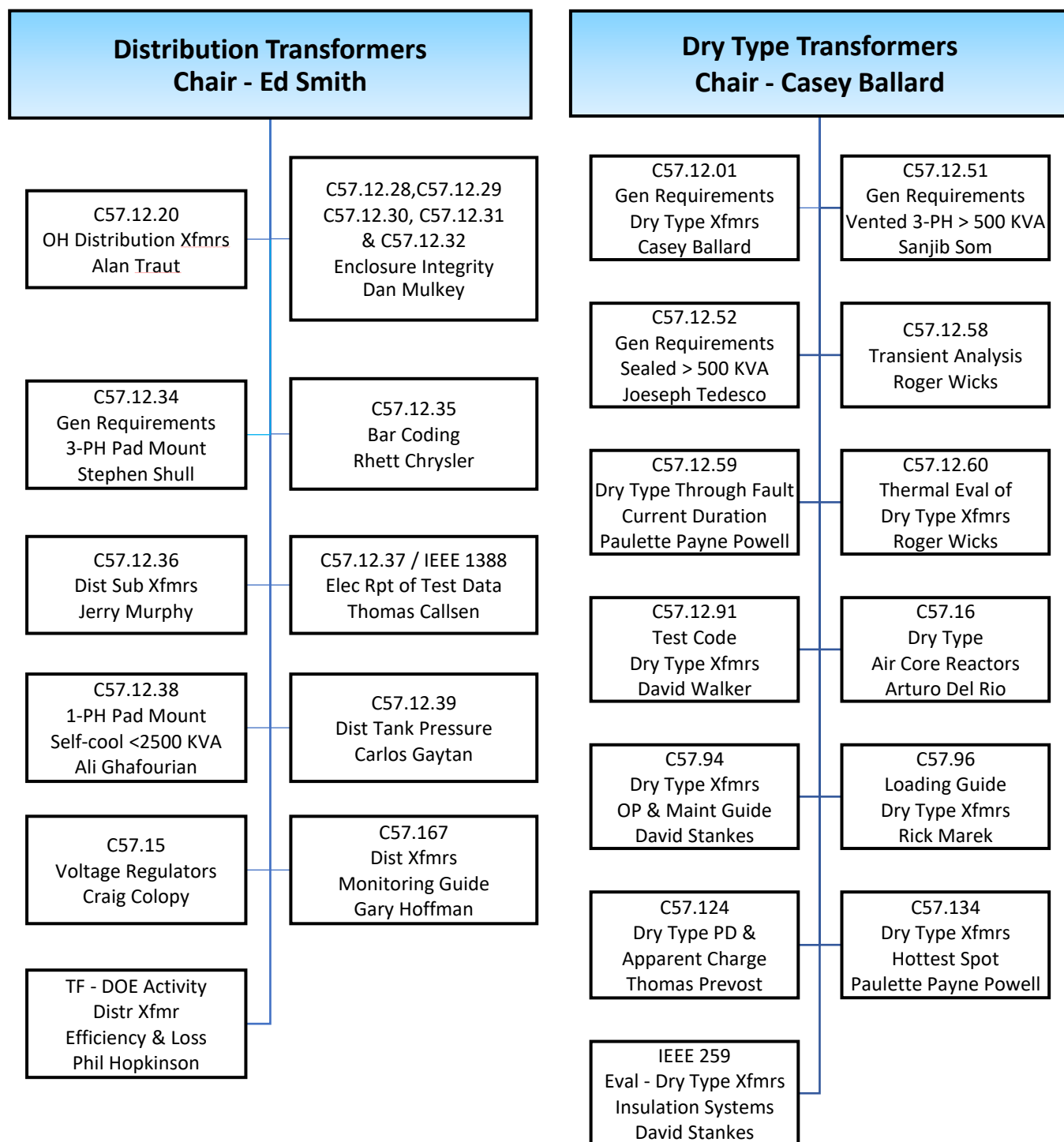
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Chair: Thomas Sizemore
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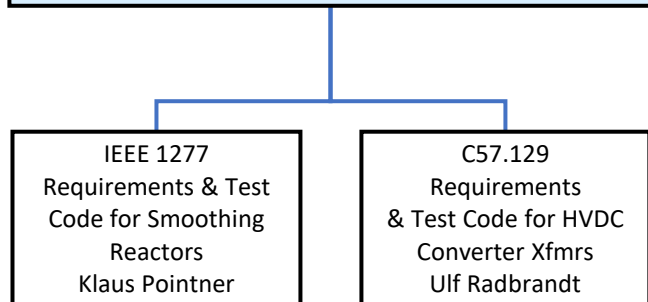
Subsurface Transformers & Network Protectors

Chair: George Payerle
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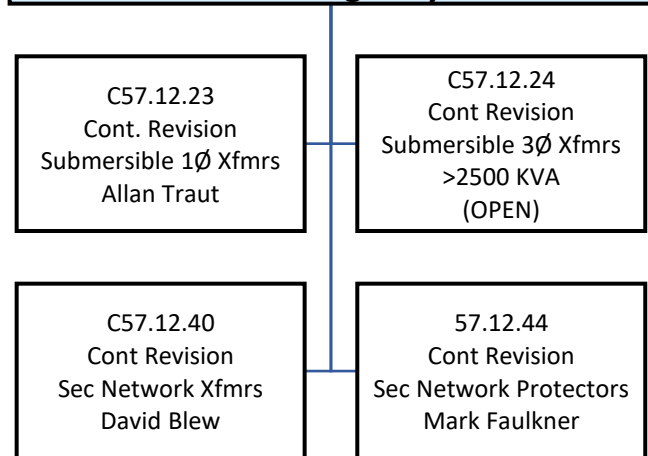




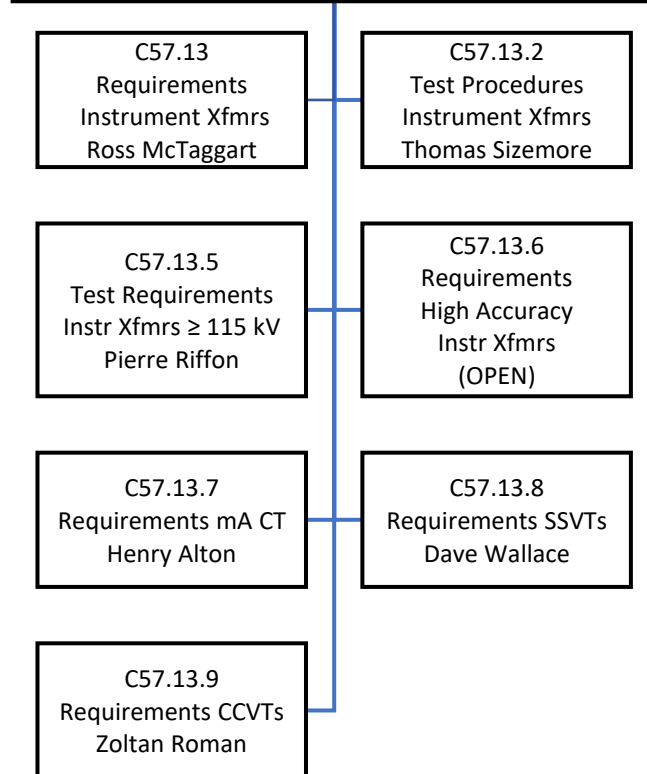
HVDC Converter Transformers & Smoothing Reactors Chair - Ulf Radbrandt

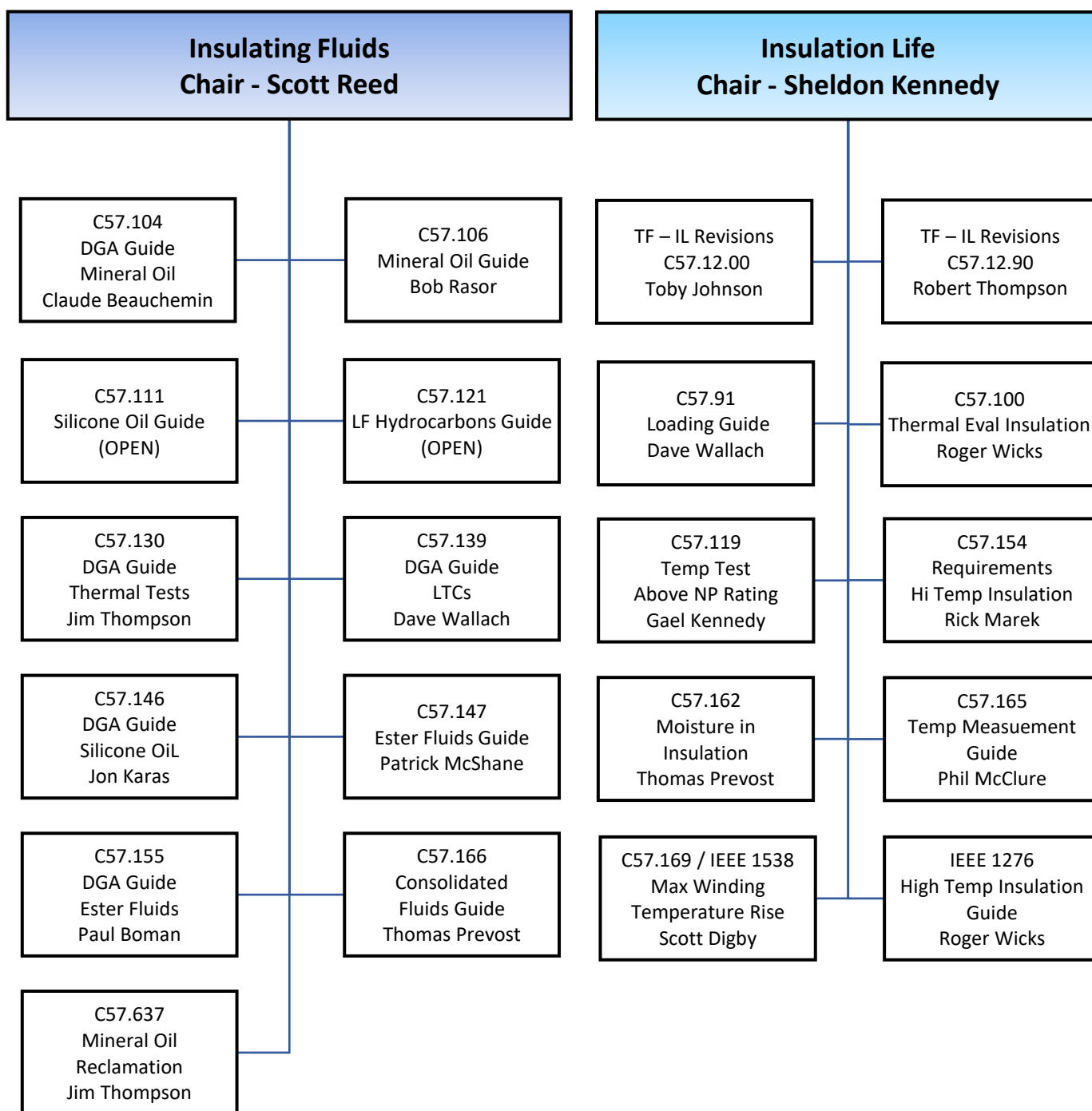


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C57.120 Loss Evaluation Guide Rogerio Verdolin	C57.123 Xfmr Loss Measurement Ed teNyenhuus
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C57.93a (Amend) Cold Start - Esters Wei Yao	

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57.12.00
Cont Revision
Steve Snyder

C57.12.90
Cont Revision
Stephen Antosz

C57.12.70
Terminal Markings
& Connections
Jason Varnel

C57.12.80
Terminology
James Graham

C57.144
Metric Conversion
(OPEN)

C57.152
Field Testing Guide
Marcos Ferreira

C57.163
Xfmrs GMD Guide
Daniel Blaydon

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Cross-References
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Jennifer Quandrel
Planning Asst
(Contractor)

Educational
Development
Thomas Prevost

RFID
Kris Zibert

Break Refreshments
Ed Smith

Web Site
Development
Sue McNelly
Kris Zibert

Committee History
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