

1) **Introduction of Members and Guests**

**Chair:** Victor Hermosillo  
**Secretary:** Carl Schuetz

Welcome, Introductions and Roster Circulation made.

2) **IEEE Patent Policy**

Policy slides were reviewed, no patent claims were identified.

3) **Approval of Minutes of Previous Meeting**

Victor Hermosillo / Carl Schuetz

Approval of Minutes of Burlington, VT  
 Sent to all members and guests via e-mail.  
 Follow up: None required  
 John Webb motion for approval  
 Ken Edwards second  
 approved by consensus

4) **Membership**

	ROLE AS MEMBERS	ROLE AS GUESTS	ROLE AS CORRESPONDING MEMBERS	REQUIRED* FOR QUORUM COUNT	TOTAL
HVCB Committee Roster	44	150	10	≥ 50% membership at meeting (≥ 22 members)	204
Attendance Recorded San Diego, CA	27	51	None present	Quorum met	78

\*Quorum Count includes: Active Members, Chair, Secretary, and (Corresponding Members if present at the meeting)

Introduction of new members, recognitions:

The following individuals have fulfilled the requirements for membership:

- Peter Meyer
- Andrew Peterson
- Wei (Will) Zhang
- Jeffrey Door
- John Phouminh
- Bobby Rich
- Jeffrey Ward

Excused members (6): D. Dufournet, Helmut Heiermeier, Anne Bosma, Joe Jasinski, R. Alexander, K. Smith

Member resigned (0):

5) **Chairman's Report**

Victor Hermosillo

Contact information was given for the Chair and Secretary.

Chair (Victor Hermosillo):	vfhermosillo@ieee.org	(724) 483-7875
Secretary (Carl Schuetz):	cschuetz@ieee.org	(262) 506-6962

- WG chairs need to email minutes of their WG meetings to the subcommittee secretary no later than November 9th, 2019.

6) **Reports of Working Groups**

a) **Technical Paper Reviews**

Victor Hermosillo for Kirk Smith

Four papers received, most for T&D show. The chair made a request for members to author a paper or submit a poster session.

b) **WG Activities Update**

**62271-37-013 (Replaces C37.013 and C37.013a)**

Update provided by Mike Palazzo - work continues on upgrades to the document. Next draft is anticipated for March 2020. Two more meeting sessions in S20 and F20 are foreseen, then anticipate going to ballot.

**C37.017**

Update provided by Devki Sharma – meetings have been held between Switchgear Committee, Joint Technical Committee and Transformer Committee. This session identified further several revisions to include recently expressed requirements and proceed to JTCM with the final draft intended to be shown in Reno. After that go to ballot.

**PC37.11**

Update provided by John Webb – several comments were reviewed in the session. One comment identified the revised document structure that included ratings and requirements that are contained in C37.04 and referred to in C37.11. The working group felt that the previous document structure better reflected control circuit requirements. The chair will revise the document and request comments.

**C37.012a**

Update provided by Luke Collette – The working group agreed with revised guidance for inrush current  $di/dt$  ( $I \times f$ ) values and recommended several new clauses be revised.

**PC37.122**

Update provided by Carl Schuetz for Ryan Stone – This is a Substation Committee sponsored working group. Revisions made to date were discussed and several clarifications to these revisions were requested. Since this is presently a SC working group. HVCB will make a recommendation during the ADSCOM session to establish a Liaison Task Force.

## 7) Reports of AdsCom WG/TF/Study Group

- PC57.16 TF Dave Caverly  
First Task Force (TF) meeting held in San Diego Reason for TF is that ratings of reactor defined by switchgear considerations. Substation Committee has requested SC assistance in improving guidance on reactor sizing.

- Shunt Reactor Switching TF Sushil Shinde  
Survey comments received, intent is to publish survey within the next few months.

- PAR Study Group - C37.10 "IEEE Guide for Investigation, Analysis, and Reporting of Power Circuit Breaker Failures" Neil Hutchins  
A meeting was held and the group discussed the need to continue the use of this document and produced a proposed wording of a PAR.  
Motion made by Neil Hutchins to create a PAR for C37.10  
Second by Pat Dillilo  
Vote for approval  
Disapprovals: none  
Approval by consensus

- PAR Study Group - C37.016 Neil McCord  
Attendance at this session: 16 guests, 15 members  
Errors were found in the recently published standard (C37.016) and revisions agreed upon. The chair requested permission to draft a PAR for a Corrigenda.  
Motion made to create a PAR for a Corrigendum made by Neil McCord  
Second: Ken Edwards

Motion made to extend the Study Group made by Todd Irwin  
Second: Ken Edwards  
Passed by consensus

- HVDC circuit breaker TF Joanne Hu  
Update provided by Steven Cheng. First meeting held 24 attendees, member total of 17. Purpose of TF explained, timeframe of work provided. The present intent is to develop a standard document and work on PAR development. A WG document library in 123signup has been made.

HVS would like to collaborate on the need for DC standards. This would require an expanded scope for this TF, resulting in a joint TF.

- HVCB Standard Control Cabinet TF Devki Sharma  
Meeting held and concluded there is not enough interest in continuing work for such a standard. The TF chair recommended disbandment of the group. SC chair accepted and disbanded the TF.

- PAR Study Group - C37.04 and C37.09

Jan Weisker

Attendance: 31 members and 4 guests

Multiple mistakes found that resulted in the group identifying the need for a corrigendum and further work. The further work is felt to be best handled by an Ad-Hoc group.

Motion made by John Webb to form an Ad-Hoc group to identify the most pressing issues concerning revisions to C37.04 and C37.09.

Second: Eldridge Byron

Discussion – The intent of the Ad-Hoc group is to identify and prioritize which technical issues need further clarification and or revision

The different types of documents that address published errors are:

- Errata – used to identify errors contained in the published document when the errors were introduced between final draft and publication
- Corrigenda – fix errors in the published document but not change scope of document
- Ad-Hoc group – covers specific tasks not related to a particular document and cannot modify a document
- Amendment – correct or add specific information

Vote: passed by consensus

Corrigendum PC37.04 Chair John Webb and Secretary Jan Weisker

Corrigendum PC37.09 Chair: Jan Weisker and Secretary: John Webb

Ad-Hoc Chair: Terry Woodward and Secretary: TBD

- Technology and Innovation Subcommittee

V. Hermosillo for  
Nenad Uzelac

TF on Performance of SF6 Alternatives held two meetings. Preparation of chapters ongoing. Attended by 87 individuals, 36 members, 51 guests.

Request for HVCB Subcommittee to nominate three (3) representatives to the T&I Subcommittee. Chair prepared a list of active participants in existing TF.

- Paul Leufkens
- David Johnson
- TBD

## 8) CIGRE Reports

Nenad Uzelac not in attendance but provided the following list of CIGRE WG activity:

- A3 Study Committee had an annual meeting in September during CMDM 2019 conference

- Slight reorg of A3 to include Distribution Liasons, IEC TC 38 liaison (Instrument transformers), and Utility Advisory Board
- Conducted survey among A3 National Committees on the trends and challenges and the top 2 are Influence of Renewables on T&D Equipment and Asset Management.
- In process of reviewing abstracts for 2020 CIGRE.
- Starting two new working groups: one discussing overvoltages and their influence on switchgear and other on High Frequency Low Power Voltage Transformers. Also, plan to start soon WG on Generator CB.

Technical Brochures:

Upcoming:

- WG A3.30: Overstressing of HV substation equipment
- WG A3.35: Guidelines and best practices for commissioning and operation of controlled switching projects

CIGRE Updates go to <https://cigre-usnc.tamu.edu/study-committees/>

#### 9) **Old Business**

- a) <https://development.standards.ieee.org/my-site/open-ballot-invitations>
- b) Senior membership - 102 senior members total in switchgear.

#### 10) **New Business**

- Presentation Reminder – “Reactor Switching” by Dr, David Peelo (Thursday October 10<sup>th</sup>, 2019 (11:45 AM to 3:30 PM)
- Documents published: PC37.04, PC37.09, PC37.011, PC37.10.1, PC37.12, PC37.12.1, and PC37.016.
- Chair explained that ADSCOM has requested withdrawal of C37.06.  
Motion made by John Webb to withdraw C37.06  
Second by: Xi Zhu  
Motion approved by consensus

Future Meetings

- a) Spring 2020: Peppermill Resort, Reno, NV – May 4<sup>th</sup> to 8<sup>th</sup>, 2020
- b) Fall 2020: Sheraton Sundance Square, Fort Worth, TX – October 4<sup>th</sup> to 8<sup>th</sup>, 2020
- c) Spring 2021: Hilton Charlotte University Place, Charlotte, NC – April 18<sup>th</sup> to 23<sup>rd</sup> 2021

Secretary made a request to identify the number of meetings that each WG will have for the next 6 meetings (3 years).

An additional request was made to identify the WG sessions that should not coincide in order to prevent scheduling conflicts.

**11) Adjourn**

Motion made by Ken Edward

Second: Arben Bufi

Submitted by: Carl Schuetz

HVCB Subcommittee Secretary

October 10, 2019

<b>Attendance in San Diego</b>				
Last Name	First Name	Company	Role	Attendance in San Diego
Alexander	Roy	RWA Engineering	Member	excused
Aristizabal	Mauricio	ABB	Member	X
Becker	George	POWER Engineers Inc.	Guest	X
Bergman	W.J. (Bill)	Bergman& Associates Ltd.	Corresponding Member	Corresponding Member
Billings	J	John S Billings Consulting	Corresponding Member	Corresponding Member
Bosma	Anne	ABB AB	Member	excused
Bryant	Craig	Duke Energy	Guest	X
Bufi	Arben	Hitachi T&D Solutions, Inc.	Member	X
Byron	Eldridge	Schneider Electric	Member	X
Carmona	Gilbert	Southern California Edison	Corresponding Member	Corresponding Member
Caverly	David	Trench Ltd.	Guest	X
Chen	Steven	Eaton Corporation	Member	X
Chiodo	Vincent	HICO	Guest	X
Christian	Michael	ABB	Guest	X
Collette	Lucas	Duquesne Light	Member	X
Cosby	Bianca	San Diego Gas & Electric	Guest	X
Crawford	Michael	Mitsubishi Electric	Member	X
Crist	Daniel	Siemens Industry, Inc.	Guest	X
Cunningham	Jason	Southern States, LLC	Member	X
Di Lillo	Patrick	Consolidated Edison Co. of NY, Inc.	Member	X
Door	Jeffrey	The H-J Family of Companies	Guest	X
Dotson	Randall	Lakeland Electric, City of Lakeland, FL	Corresponding Member	Corresponding Member
Dwyer	Pete	Dwyer Enterprises	Corresponding Member	Corresponding Member
Edwards	Ken	FirstEnergy Corp.	Member	X
Eftink	Emily	Burns & McDonnell	Guest	X
Flores	Sergio	Schneider Electric Inc. USA	Member	X
Hall	John	Tennessee Valley Authority	Member	X
Heiermeier	Helmut	ABB	Member	excused
Hensberger	Jeremy	Mitsubishi Electric Power Products Inc.	Guest	X
Hermosillo	Victor	GE Grid Solutions	Chair	X

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Hu	Jingxuan (Joanne)	RBJ Engineering Corporation	Corresponding Member	Corresponding Member
Irwin	Todd	GE Grid Solutions	Member	X
Jarnigan	Christopher	Southern Company Services	Guest	X
Jasinski	Joseph	ITC Holdings Corp.	Guest	excused
Johnson	David	HVCB	Guest	X
Keels	Thomas	kEElectric Engineering	Guest	X
Kim	SangTae	HICO/HYOSUNG	Guest	X
Lester	George	Boston Edison - Retired	Corresponding Member	Corresponding Member
Liu	Hua Ying	Southern California Edison	Member	X
Livshitz	Albert	CE Power Engineered Services	Member	X
Marshall	Vincent	Southern Company Services	Guest	X
Marzec	Peter	S&C Electric Co.	Guest	X
May	Steven	Southern Company	Guest	X
McCord	Neil	KEC Precision	Member	X
Mitchell	Dave	Mitch and Associates	Member	X
Montillet	Georges	GFM Consulting LLC	Corresponding Member	Corresponding Member
Montoya	Stephanie	Southern California Edison	Guest	X
Moran	Ashley	IEEE Standards Association (IEEE-SA)	Guest	X
Natale	Anthony	HICO America	Guest	X
Nelson	Jeffrey	Tennessee Valley Authority	Corresponding Member	Corresponding Member
Olsen	T	Retired, formerly with Siemens Industry, Inc.	Corresponding Member	Corresponding Member
Palazzo	Mirko	ABB	Member	X
Pellerito	Thomas	DTE Energy	Member	X
Perrin	Damian	Entergy Services, LLC	Guest	X
Peterson	Andrew	ABB	Guest	X
Phan	Lise	Pacific Gas and Electric Company	Guest	X
Phouminh	John	PEPCO HOLDINGS, INC.	Guest	X
Polchinski	Craig	MEPPI	Guest	X
Ricciuti	Anthony	Eaton Corporation	Member	X
Rich	Bobby	Dominion Virginia Power	Guest	X
Roberts	Brian	Southern States, LLC	Guest	X
Ross	Hugh	Ross Engineering Corporation	Corresponding Member	Corresponding Member



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Schuetz	Carl	American Transmission Company (ATC)	Secretary	X
Sharma	Devki	Entergy	Member	X
Shinde	Sushil	ABB Inc.	Member	X
Skidmore	Michael	AEP	Past Chair	X
Slattery	Christopher	FirstEnergy	Guest	X
Smith	Robert	Retired	Member	excused
Steigerwalt	Don	Duke Energy	Member	X
Swing	Donald	Powell Industries	Guest	X
Toolis	Elizabeth	MEPPI	Guest	X
Toups	Vernon	Siemens	Guest	X
Trichon	Francois	Schneider Electric	Guest	X
van de Ligt	James	CANA High Voltage Ltd.	Guest	X
Wagner	Charles	Consultant	Corresponding Member	Corresponding Member
Ward	Jeffrey	Doble Engineering Company	Guest	X
Webb	John	ABB	Member	X
Weishuhn	William	ABB	Guest	X
Weisker	Jan	Siemens AG	Guest	X
Wen	Jerry	BC Hydro	Guest	X
Westerdale	Matt	Bureau of Reclamation	Guest	X
Woodyard	Terrance	Siemens Industry Inc.	Member	X
Yoon	Dong Sun	HICO America	Guest	X
York	Richard	Mitsubishi Electric Power Products Inc.	Member	X
Young	Marcus	Mitsubishi Electric Power Products, Inc.	Guest	X
Zhang	Wei	Hitachi T&D Solutions, Inc.	Guest	X
Zhu	Xi	GE Energy Management	Member	X