

C37.100.1 WG

Common Requirements for HV Power Switchgear Rated Above 1000 V

April 28, 2015 – St. Pete Beach, Florida

The Working Group for the revision of C37.100.1-2007 held its 7th meeting on April 28, 2015 in St. Pete Beach, Florida. 18 WG members and 29 guests were present.

Meeting was called to order at 2:00 PM by WG Chairman, David Stone.

Oral Introductions of meeting members followed and attendance sheets were circulated.

The agenda was reviewed and approved. In like manner, the minutes of the previous meeting held in Asheville, NC were approved.

All attendees were reminded of the process and access requirements to retrieve information from the IEEE document archives at the following URL:

<http://grouper.ieee.org/groups/c37/100/1/private>.

Username and password were shown at the meeting and may be requested by WG members from the Chairman.

Working group membership stands at a total of 43; 22 full members and 21 corresponding members.

IEC 62271-1:

A report on the IEC MT34 activities was given by the Chairman. MT34 held two meetings since the first of the year. A 3rd CD draft was completed and has been sent to the National Committees for review and comment. Comments are due by July 3, 2015.

The MT will meet again in late July to review the comments from this 3rd CD and will report their responses to the IEC SC17A at the next plenary meeting to be held in December 2015. A CDV ballot is expected following the December meeting.

Timeline for IEEE C37.100.1:

The chairman proposed a timeline for the remainder of the project as follows:

- Initiate invitation to ballot pool April 2015
- Finalize draft for 1st ballot: May 2015
- 1st ballot: June - July 2015
- Review/resolve 1st ballot comments: Aug - Oct. 2015
- 2nd ballot: 4th qtr. 2015
- Resolve 2nd ballot comments: April. 2016
- 3rd ballot (if req'd) 2nd qtr. 2016
- Submit to RevCom: 3rd qtr. 2016

The chairman will request a PAR extension since the current PAR expires at the end of the year.

Review of draft 1.4:

The chairman gave an overview of the latest draft 1.4 dated March 2015. Extensive

use/harmonization of the specifications from IEC 62271-1 (IEC document 17A/1085e/CD) was made in this draft. This will require a review of the copyright requirements with IEC. The balance of the meeting was devoted to a review of the draft; several editorial errors were identified and noted.

Subclause 5.10.4 (now 5.23) the requirement for marking vacuum interrupters should recognize encapsulated interrupters in which case the marking should be made on the encapsulation. The Chairman will make this change and recommend the same change to IEC 62271-1.

Dr. E. Dullni discussed a recent study by the Technical University of Dresden on the long-term performance of bare copper and bare aluminum when bolted to their silver plated counterparts. The results of the study are reflected in revisions to the temperature rise table and to "point 5" following the table. A copy of the research paper by Torsten Fuhrmann et. al. is available on the IEEEEXPlore . The paper will be added to the bibliography of the C37.100.1 standard.

Clauses 8 through 12 of the IEC standard cover topics not normally addressed in IEEE standards. These clauses are not included in the current draft of C37.100.1. The members were asked to review them in IEC and offer opinions/comments on whether or not they should be included in the IEEE document.

Next Actions: Request PAR extension; Form Ballot Pool; Initiate 1st ballot

Next meeting: Week of September 20, 2015 at the Catamaran Resort Hotel; San Diego, California.

David Stone, Chairman

May 10, 2015

**Annex A: Attendance: C37.100.1-2007 WG Meeting April 28, 2015
X = present at meeting**

Role	First Name	Last Name	Company	Country	4/28/2015
Chair	David	Stone	DTS Technical Services	USA	X
Member	Chris	Ambrose	Federal Pacific	USA	X
Member	George	Becker	Electric Power Research Institute	USA	
Member	Robert	Behl	ABB	USA	X
Member	W.J. (Bill)	Bergman	PowerNex Associates Inc.	Canada	
Member	Antone	Bonner	Eaton	USA	X
Member	Russell	Boyce	Eaton	USA	X
Member	Ted	Burse	Powell Industries, Inc	USA	
Member	Gilbert	Carmona	Southern California Edison	USA	X
Member	Frank	DeCesaro	Eaton's Cooper Power Systems	USA	
Member	Ken	Edwards	Bonneville Power Administration	USA	

Member	Donald	Elliott	ABB	USA	X
Member	Leslie	Falkingham	Vacuum Interrupters Limited	UK	X
Member	Lawrence	Farr	Eaton Electrical	USA	X
Member	Sahadev	Gohil	AZZ/Central Electric Mfg. Co.	Other	X
Member	Edward	Jankowich	Representing ABB/T&B	USA	X
Member	Hua Ying	Liu	Southern California Edison	USA	X
Member	Peter	Meyer	S&C Electric Company	USA	
Member	Alan	Peterson	Utility Service Corporation	USA	
Member	Arnold	Putans	Detroit Edison	USA	
Member	Charles	Ross	PGH Wong Engineering	USA	
Member	Gerard	Schoonenberg	Eaton	Netherlands	
Member	Mike	Seabrook	GE	USA	
Member	Robert	Smith	Eaton Corporation	USA	
Member	James	Swank	Cooper Power Systems	USA	X
Member	Larry	Yonce	Eaton Corporation	USA	
Corres Member	Arun	Arora	Consultant	USA	
Corres Member	Anne	Bosma	ABB AB	Sweden	X
Corres Member	Arben	Bufl	Hitachi HVB, Inc.	USA	
Corres Member	Steven	Chen	Eaton Corporation	USA	X
Corres Member	James	Collins	CRC Industries	USA	
Corres Member	Larry	Davis	Reuel Inc	USA	
Corres Member	Denis	Dufournet	Alstom Grid	France	X
Corres Member	Charles	Hand	Southern California Edison	USA	
Corres Member	Kenneth	Harless	Pascor Atlantic	USA	
Corres Member	Harold	Hirz	Thomas and Betts	USA	
Corres Member	Jingxuan (Joanne)	Hu	RBJ Engineering Corporation	Canada	X
Corres Member	Albert	Livshitz	CE Power Solutions	USA	
Corres Member	David	McMullen	Southern Company Services	USA	
Corres Member	Steven	Meiners	GE	USA	
Corres Member	Frank	Muench	Cooper Power Systems	USA	
Corres Member	Muhammad	Omer	ABB Inc	USA	
Corres Member	Larry	Putman	Powell Electrical Systems Inc.	USA	
Corres Member	Carl	Reigart	Hubbell Power Systems/USCO	USA	X
Corres Member	Hugh	Ross	Ross Engineering Corporation	USA	
Corres Member	Carl	Schneider	Schneider Electric	USA	X
Corres Member	Paul	Sullivan	DuPont	USA	
Guest	Jean-Marc	Biasse	Schneider Electric	France	X
Guest	Stan	Billings	Mitsubishi Electric PP	USA	X
Guest	Eldridge	Byron	Schneider Electric	USA	X
Guest	Donald	Cantrelle	Georgia Power	USA	X
Guest	Samuel	Chang	Pacific Gas & Electric Co	USA	X

Guest	David	Dart	NOJAPower	Australia	X
Guest	Edgar	Dullni	ABB	Germany	X
Guest	Jerry	Earl	ABB - Retired	USA	X
Guest	Sergio	Flores	Schneider Electric Inc. USA	USA	X
Guest	Paul	Found	BC Hydro	Canada	X
Guest	Travis	Johnson	Xcel Energy	USA	X
Guest	Jayamali	Kasige	Crown Technical Systems	Canada	X
Guest	Brad	Leccia	Eaton	USA	X
Guest	Alex	Lizardo	ABB	USA	X
Guest	Russell	Long	Retired	USA	X
Guest	Deepak	Mazumdar	Central Electric Mfg Co.	USA	X
Guest	Volkan	Ozsokmen	Ormazabal	USA	X
Guest	Andrew	Peterson	ABB	USA	X
Guest	Samala Santosh	Reddy	Powell Industries	USA	X
Guest	Julian	Rizo	Xcel Energy	USA	X
Guest	Ian	Rokser	Eaton Corp	USA	X
Guest	Roderick	Sauls	Southern Company Services	USA	X
Guest	Devki	Sharma	Consultant	USA	X
Guest	Joseph	Smith	FortisAlberta	Canada	X
Guest	Hongbiao	Song	GE	USA	X
Guest	James	Stacy	Schneider Electric	USA	X
Guest	Matthew	Williford	Schneider Electric	USA	X
Guest	Lukas	Zehnder	ABB Switzerland	Switzerland	X