

C37.100.2 Common Requirements for Testing of Capacitance Current Switching Devices  
Minutes of the Fall 2012 Meeting  
Catamaran Resort, San Diego, CA USA  
October 2, 2012

Meeting was called to order by the chair, Neil McCord, at 8:00am.

Introductions

- 9 of 13 members attended. A quorum was present.

Minutes from the spring 2012 meeting in St. Pete Beach were reviewed.

- Motion to accept minutes made by Pete Meyer, seconded by Kirk Smith, affirmed

The chair stated that Dr. S.J. Park of KERI has requested to be a corresponding member of the committee.

Non-Sustained Disruptive Discharges (NSDD's) were heavily discussed.

- Defined and explained by Kirk Smith
- Pete Meyer brought up the difficulty to detect in 3-phase ungrounded systems
- Refer to IEC 62271 (NSDD's don't constitute a failure, but must be noted in test report)
- Refer to definition in C37.100.1 definition 3.4, more in 6.1.2 note 2
- Only apply to vacuum breakers?

It was decided that the term "general purpose breaker" will not be used interchangeably with class C0 since this document will only cover capacitance switching.

A range for class C1 may be added (i.e.,  $0.2% < C1 < 2.0%$ ) to avoid confusion.

Define "restrike" and "reignition" from C37.100.1

Wording in 4.1 Applicability needs work.

4.3 Characteristics of Circuits needs work. Neil volunteered himself.

4.3.3 Characteristics of cable-charging current switching tests

- a) Roy will work on explaining "positive sequence" and "zero sequence" capacitance
- b) Frank will explain how this is used by customers and in the lab
- c) refer to the figure in 1247
- d) follow up with Dr. Park from KERI

4.3.5 Damping factor for inrush currents – harmonize with C37.66. Antone Bonner will assist.

4.3.6 Characteristics of Supply Circuits

- a) Anne Bosma will fix wording. Also either omit reference to 4.10.10 (or find it)
- b) add "symmetrical value of the withstand" for clarity
- d) reword to clarify jump from 50Hz to 60Hz and vice-versa

Section 4.3.8.2 Test voltage direct single phase

- a) grounded, ungrounded, etc. will be explained
- b) may be moved to annex in table form
- c) Anne sent comments that will be worked in to this section

4.8 High operation endurance - Antone Bonner will compare to IEC 62271-103 clause 4.109

4.8.1 Test Duty – need to state line-to-line voltage for clarity

Roy will continue work on Annex C

Kirk will continue work on Annex E

Harry will have definitions complete by the end of November.

Kirk suggests completely removing synthetic testing from the document since it exists as an IEC doc.

Anna sent sub-clause 6.111 of the synthetic capacitor switching tests from IEC 62271-101 to the chair if it is found to be appropriate to include synthetic testing in this document

Plan of action is that Neil will send out the latest draft to the members in two weeks for review and comment. A ballot will shortly follow the receipt of comments from members (roughly 3 months).

Neil will send a copy of the draft to Erin for IEEE formatting in two weeks.

Meeting adjourned at 12:00pm.

Member and Attendance Information - C37.100.2

Role	Participation Status	Type	First Name	Last Name	Company	City	State	Country	Attendance					
									9/29/2010	5/17/2011	10/11/2011	5/1/2012	10/2/2012	
Chair	Active	Interested Individual	Neil	McCord	Southern States	Hampton	GA	USA		X	X	X	X	X
Vice-Chair	Active	Member	John	Webb	ABB	Florence	SC	USA	X	X				
Secretary	Active	Interested Individual	Donald	Swing	Southern States, LLC	Hampton	GA	USA				X	X	
Member	Active	Member	Roy	Alexander	RWA Engineering	Cranberry Twp.	PA	USA		X	X	X	X	X
Member	Active	Member	Antone	Bonner	Cooper Power Systems	South Milwaukee	WI	USA	X			X	X	
Member	Active	Member	Anne	Bosma	ABB AB	Ludvika	Other	Sweden	X					X
Member	Active	Member	Frank	DeCesaro	Cooper Power Systems	Franksville	WI	USA	X		X	X	X	X
Member	Active	Interested Individual	Rick	Gavazza	Pacific Gas & Electric	Novato	CA	USA	X					
Member	Active	Interested Individual	Harold	Hirz	Thomas and Betts	Solon	OH	USA	X	X	X	X	X	X
Member	Active	Member	Russell	Long	Retired	Pittsburgh	PA	USA	X					
Member	Active	Interested Individual	Peter	Meyer	S&C Electric Company	Chicago	IL	USA	X	X	X	X	X	X
Member	Active	Member	Robert	Smith	Eaton Corporation	Horseheads	NY	USA	X				X	X
Member	Active	Member	David	Stone	DTS Technical Services	Reading	MA	USA	X					
Corr. Member	Active	Interested Individual	Richard	Burge	Southern States LLC	Hampton	GA	USA		X	X			
Guest	Active	Interested Individual	John Paul	Adigwu	Southern California Edison	Westminster	CA	USA						X
Guest	Active	Member	Chris	Ambrose	Federal Pacific (Division of Electro-Mechanical Corp.)	Bristol	TN	USA				X	X	
Guest	Active	Member	Michael	Anderson	American Transmission Company	Madison	WI	USA						
Guest	Active	Interested Individual	Craig	Befus	BC Hydro	Burnaby	BC	Canada	X					X
Guest	Active	Member	Robert	Behl	ABB	Lake Mary	FL	USA	X			X		
Guest	Active	Member	Stan	Billings	Mitsubishi Electric PP	Warrendale	PA	USA						
Guest	Active	Member	Eldridge	Byron	Schneider Electric	Smyrna	TN	USA						
Guest	Active	Interested Individual	Gilbert	Carmona	Southern California Edison	Pomona	CA	USA				X	X	
Guest	Active	Interested Individual	Lucas	Collette	Mitsubishi Electric Power Products	Warrendale	PA	USA	X	X				
Guest	Active	Honorary Member	Alexander	Dixon	Alex Dixon, Inc.	Randallstown	MD	USA						
Guest	Active	Interested Individual	Edgar	Dullni	ABB	Ratingen	Other	Germany		X		X		
Guest	Active	Interested Individual	Hernan	Figuroa	Hubbell Power Systems	Leeds	AL	USA	X					
Guest	Active	Interested Individual	John	Hall	Tennessee Valley Authority	Chattanooga	TN	USA				X	X	
Guest	Active	Member	Helmut	Heiermeier	ABB	Baden	Other	Switzerland						
Guest	Active	Interested Individual	Christian	Heinrich	Siemens AG	Berlin	Other	Germany						X
Guest	Active	Interested Individual	Reid	Herzog	OG&E	Oklahoma City	OK	USA	X	X		X	X	
Guest	Active	Member	Luther	Holloman	Dominion	Richmond	VA	USA						
Guest	Active	Member	James	Houston	Southern Company Transmission	Birmingham	AL	USA						
Guest	Active	Interested Individual	Carl	Kurinko	ABB Inc.	North Huntingdon	PA	USA						
Guest	Active	Interested Individual	Daniel	Landreman	Cooper Power Systems	Franksville	WI	USA	X					
Guest	Active	Interested Individual	Wangpei	Li	Eaton	Horseheads	NY	USA				X	X	
Guest	Active	Interested Individual	Herbert	Martinez	Southern California Edison	Westminster	CA	USA	X					
Guest	Active	Member	Frank	Mayle	Technibus, Inc.	Canton	OH	USA						
Guest	Active	Interested Individual	Tom	Mulcahy	Dominion	glen Allen	VA	USA				X	X	
Guest	Active	Interested Individual	Raj	Nayar	Siemens Energy Inc.	Heber Springs	AR	USA						
Guest	Active	Member	Jeffrey	Nelson	Tennessee Valley Authority	Chattanooga	TN	USA		X				
Guest	Active	Member	Carl	Reigart	Hubbell Power Systems/USCO	Leeds	AL	USA					X	
Guest	Active	Interested Individual	Anthony	Ricciuti	Eaton Corporation	Moon Township	PA	USA						
Guest	Active	Interested Individual	Marcelo	Rodrigues	CEPEL - Electric Energy Research Center	Nova Iguacu	Other	Brazil						X
Guest	Active	Interested Individual	Carl	Schneider	Schneider Electric	Smyrna	TN	USA						
Guest	Active	Active Participant	Francois	Soulard	Hydro-Quebec	Montreal	QC	Canada	X					
Guest	Active	Staff	Erin	Spiewak	IEEE	Piscataway	NJ	USA				X		
Guest	Active	Interested Individual	Andrew	Swisher	Southern California Edison	Westminster	CA	USA	X					X
Guest	Active	Interested Individual	Robert	Warren	KEMA Powertest	Chalfont	PA	USA						
Guest	Active	Interested Individual	Xi	Zhu	HICO America	Murrysville	PA	USA						

**WG Participation Summary**

Members	13
Other	36
Total	49

Meeting Attendance:

Members:	9	6	5	8	9
Guests:	10	4	1	11	11

19	10	6	19	20
9	6	5	8	9
10	4	1	11	11