#### 1) Introduction of Members and Guests

Rich York

See F08HVCBa1.pdf

# 2) Approval of Minutes of Previous Meeting

Rich York/Rod Sauls

Approved as posted

### 3) Discussion of IEEE patent policy

Rich York

See F08HVCBa2.pdf

WG Chairs were reminded to make sure and review the IEEE patent slides at the beginning of every meeting.

4) Membership (See F08HVCBa3.pdf)

	Utility	Manufacturer	Independent / Consultants/Corresponding	Guests	Total Membership
Current membership	21	23	14		58
Attendance	13	12	3	15	43

Rich York mentioned that the membership roster has been updated.

Rich York asked that anyone interested in becoming a member, please either him or Rod Sauls know. Also, the meeting booklets that are printed out contain information on the requirements for becoming a Subcommittee member.

## 5) Chairman's Report

Rich York

Chairman (Rich York): richyork@ieee.org 724-696-1555 Secretary (Rod Sauls): rodsauls@ieee.org 205-257-4143

All WG Chairs are requested to maintain the AMS roster for the WG.

- Rich York requested that WG Chairs send the information to be included in the next meeting booklets when sending the meeting minutes. Also include a brief description of the next meeting agenda as well as if a meeting will be required.
- More participation is needed from members to be working group chairs.

### 6) Reports of Working Groups

### a) Technical Paper Reviews

Jeff Nelson

- Manuscript Central has been updated and the system has changed
- 10 papers have been reviewed. Numbers are not available due to the update at this time.

#### b) WG Activities

Document	Title	SubCommittee	WG Chair	PAR	IEEE Status	Activity
C37.04-1999	IEEE Standard Rating Structure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis	HVCB	Jeff Nelson	2007	In Ballot	Corrigenda being prepared.
Workin	g group met.					<u> </u>
See atta	achment F08HVCBa4.pdf					
<ul> <li>Will rec</li> </ul>	circulate by end of 2008.					
C37.04a-2003	IEEE Standard Rating Structure for AC	HVCB	D A1	- 1	R2006	T- h-:
Amendment to	High-Voltage Circuit Breakers Rated on a	пусь	Roy Alexander		K2000	To be incorporated into new C37.04
C37.04-1999	Symmetrical Current BasisAmendment					C37.04
C37.04 1777	1: Capacitance Current Switching					
No Acti	• •					
PC37.04b	IEEE Standard Rating Structure for AC	HVCB	Kirk Smith		In Ballot	Draft balloting
Amendment to	High-Voltage Circuit Breakers Rated on a					
C37.04-1999	Symmetrical Current BasisAmendment					
227 1 .	2 Required TRV Values:					
	g group met.					
	achement F08HVCBa11.doc	•,•				
	rculation had 10 comments and a few more povised draft and information to Matt Ceglia to s		d D			
Sent rev	vised draft and information to Matt Cegna to s	art imai recirculation	and Revcom process.			
C37.062000	American National Standard for	HVCB	Georges Montillet	2007	In Ballot	Revision draft under
ANSI	SwitchgearAC High-Voltage Circuit		C			development
	Breakers Rated on a Symmetrical Current					-
	BasisPreferred Ratings and Related					
	Required Capabilities					
	g group met.					
	achment F08HVCBa5.doc					
	d D8.8 ballot and had a number of issues.					
Will rev	vise and send out for a 10 day ballot in Novem	ber to try and finish b	y end of 2008.			
C37.06.1-2000	American National Standard Guide for	HVCB	Georges Montillet			Being combined with C37.06
ANSI	High-Voltage Circuit Breakers Rated on a	11100	Georges Monthlet			Being combined with C37.00
111101	Symmetrical Current BasisDesignated					
	"Definite Purpose for Fast Transient	]				
	"Definite Purpose for Fast Transient Recovery Voltage Rise Times"					
• See C37	"Definite Purpose for Fast Transient Recovery Voltage Rise Times" 7.06 above					

C37.09-1999	IEEE Standard Test Procedure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis	HVCB	Bill Bergman	R2007	Corrigenda and Errata published. Revision to be undertaken.
No Act	ivity				
C37.09a-2005 Amendment to C37.09-1999	Standard Test Procedure for AC High- Voltage Circuit Breakers Rated on a Symmetrical Current BasisAmendment 1: Capacitance Current Switching	HVCB	Roy Alexander		Incorporated into new C37.09
No Act	ivity				
PC37.09b Amendment to C37.09-1999	Draft Standard Test Procedure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current BasisAmendment 2 Required TRV Values:	HVCB	Kirk Smith	PAR expires 12/31/09	PAR approved Draft under development when C37.04b is balloted.
Kirk Sı	mith will send out draft for ballot soon.				
C37.010-2005 1999 in IEEExplore	IEEE Application Guide for AC High- Voltage Circuit Breakers Rated on a Symmetrical Current Basis	HVCB	TBD (Yasin Musa)	R2005	
No Act	ivity			,	
C37.011-2005	IEEE Application Guide for Transient Recovery Voltage for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis	HVCB	Denis Dufournet		Active
See atta	ng group met. achment F08HVCBa6.doc a was made and approved to apply for a PAR to	revise .011 in orde	r to align the document with	C37.04 & .06 (after completion of .04 & .0	6 revisions)
C37.012-2005	IEEE Application Guide for Capacitance Current Switching for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis	HVCB	Anne Bosma		Active
No Act	ivity				·
C37.013-1997	IEEE Standard for AC High-Voltage Generator Circuit Breaker Rated on a Symmetrical Current Basis	HVCB	Bill Long	R2008	Needs corrigenda. Will incorporate C37.013a when revised.

	force met.					
	fully reaffirmed and .013a was administrativel					
	is circulated in IEC SC 17A, comments were in		e editorial.			
	o submit as Dual Logo document and initiate					
<ul> <li>Motion</li> </ul>	was made and approved to apply for PAR to a	dopt as Dual Logo s	tandard.			
PC37.013a	IEEE Standard for AC High-Voltage	HVCB	Bill Long	Approved	Approved	
	Generator Circuit Breaker Rated on a			2007		
	Symmetrical Current BasisSupplement					
	for generators 10 to 100 MVA					
<ul> <li>No activ</li> </ul>	ity					
C37.015-1993	IEEE Application Guide for Shunt	HVCB	Anne Bosma	Approved	R2006	WG formed to revise.
	Reactor Switching			2008		
	PAR approved until 12/2012.					
<ul> <li>Docume</li> </ul>	nt has been changed and will be recirculated a	and balloted before n	ext meeting.			
C37.016-2006	Standard for AC High-Voltage Circuit	HVCB	Peter Meyer		Approved	TF formed to address dual logo
	Switchers rated 15.5 kV through 245 kV		(Randy Dotson)			issues
<ul> <li>Docume</li> </ul>	nt was circulated in IEC for comment.					
<ul> <li>The mai</li> </ul>	n issue is that there are references to both IEE	E and IEC.				
<ul> <li>If it does</li> </ul>	s not pass IEC, then IEEE plans to drop the IE	C references and kee	ep as a sole document.			
			•			
PC37.017-20xx	Bushings for HVCB and GIS	HVCB/GIS	Devki Sharma	PAR		WG Formed
				Approved		
See attack	chment F08HVCBa10.doc.					·
<ul> <li>PAR apr</li> </ul>	proved in September 2008.					
	bstations and Switchgear WG.					
	eting is in Atlanta for GIS half.					
	be on the fast track because the desire is to h	ave it completed nex	at vear			
	ill be four meetings next year.	ave it completed her	it year.			
• There w	in be rour meetings next year.					
C37.081-1981	IEEE Guide for Synthetic Fault Testing	HVCB	Rich York		R2007	WG/TF will no longer be active.
237.001 1701	of AC High-Voltage Circuit Breakers	II (CD	(Mel Smith)		112007	,, c, 11 will no longer be delive.
	Rated on a Symmetrical Current basis		(Mici Silitii)			
	Tates on a Symmetrical Current basis		1	1		

- Will leave this document, C37.081a & C37.083 in notes and status "as-is" for now.
- Mel Smith had mentioned at one time that these documents were needed until IEC document had information to replace them.
- Rich York asked if anyone knew whether this has been done. Anne Bosma said all of it was included in IEC 62271-101.
- Kirk Smith made a comment that some may vote negative because of the IEC reference.
- Ken Edwards mentioned that IEEE does not need to rely solely on the IEC document because not everyone has access to IEC standards.
- Bill Long mentioned the possibility of making IEC 62271-101 a "Dual Logo" document.
- Kirk Smith said that maybe we can keep these documents and combine with C37.09.
- The IEEE PAR process asks if there is any other standard which covers the same material. If so, then you have to consider the other document.
- A working group may need to be formed to look into this matter further.
- There are still a couple of years before something has to be done as these were reaffirmed in 2007.
- The consensus was to change status of the documents in these minutes to remove the words pertaining to letting this document die. This has been done.

Supplement to C37.081-1981	HVCB	Rich York (Mel Smith)		R2007	WG/TF will no longer be active.
.081 above.					
IEEE Standard Methods for the Measurement of Sound Pressure Levels of AC Power Circuit Breakers	HVCB	Leslie Falkingham	Approved Sept 2008	R2006	WG formed to revise for IEEE/IEC Dual Logo Needs PAR
g group met. chment F08HVCBa7.doc					
IEEE Guide to Synthetic Capacitor Current Switching Test of AC High- Voltage Circuit Breakers	HVCB	Rich York (Mel Smith)		R2006	WG/TF will no longer be active
.081 above.					
IEEE Guide for Diagnostics and Failure Investigation of Power Circuit Breakers	HVCB	Bill Bergman		R2008	Requires reaffirmation or revision TF formed to coordinate with 1325 Needs PAR
g group met. chment F08HVCBa8.doc was made to create PAR for revision which wil was approved.	l include IEEE 132	25.			
IEEE Guide for the Selection of	HVCB	Bill Bergman		R2006	
2	IEEE Standard Methods for the Measurement of Sound Pressure Levels of AC Power Circuit Breakers group met. chment F08HVCBa7.doc  IEEE Guide to Synthetic Capacitor Current Switching Test of AC High-Voltage Circuit Breakers (1.081 above.)  IEEE Guide for Diagnostics and Failure Investigation of Power Circuit Breakers (1.081 above.)	IEEE Standard Methods for the Measurement of Sound Pressure Levels of AC Power Circuit Breakers g group met. chment F08HVCBa7.doc  IEEE Guide to Synthetic Capacitor Current Switching Test of AC High-Voltage Circuit Breakers 1.081 above.  IEEE Guide for Diagnostics and Failure Investigation of Power Circuit Breakers g group met. chment F08HVCBa8.doc was made to create PAR for revision which will include IEEE 132 was approved.	IEEE Standard Methods for the Measurement of Sound Pressure Levels of AC Power Circuit Breakers group met. Chment F08HVCBa7.doc   IEEE Guide to Synthetic Capacitor Current Switching Test of AC High-Voltage Circuit Breakers   HVCB Rich York (Mel Smith)   Voltage Circuit Breakers   IEEE Guide for Diagnostics and Failure Investigation of Power Circuit Breakers   HVCB Bill Bergman   Bill Bergman   Group met.   Group met	IEEE Standard Methods for the Measurement of Sound Pressure Levels of AC Power Circuit Breakers group met.   Characteristic Capacitor Current Switching Test of AC High-Voltage Circuit Breakers Voltage Circuit Breakers   HVCB Rich York (Mel Smith)	IEEE Standard Methods for the   Measurement of Sound Pressure Levels of AC Power Circuit Breakers   Measurement of Sound Pressure Levels of AC Power Circuit Breakers   Measurement of Sound Pressure Levels of AC Power Circuit Breakers   Measurement of Sound Pressure Levels of AC Power Circuit Breakers   Measurement Fo8HVCBa7.doc

Bill Long

Submitted

HVCB

ANSI C37.12- 1991  Document is expected to East recirculation had 1  Comments came in to be The hope is to gain Revolution Dufournet mention Ken Edwards said that Rich York advised Dention The intent of the final recircuit Break Content  No activity.  Std 1325-1996  IEEE Recomments Reporting Find Circuit Break Content  See C37.10 above.	e Specification of AC High- uit Breakers uitional Standard for AC e Circuit Breakers Rated on a Current Basis— is Guide to be approved by Nescom in negative which was out of so	December. cope.  not addressed or circu flot and that he submit either in next working	ted the comments and respo	onses to Matt Ceglia	In Ballot	Revision under development  Published
PC37.12 Guide for the Voltage Circ ANSI C37.12- American Na High-Voltage Symmetrical Specification  Document is expected to Last recirculation had In Comments came in to be The hope is to gain Revenue Denis Dufournet mention. Ken Edwards said that Rich York advised Denis The intent of the final reconstruction.  Table For State S	e Specification of AC High- uit Breakers utional Standard for AC e Circuit Breakers Rated on a Current Basis— is Guide to be approved by Nescom in negative which was out of so etter include MVCB. In one of that his comments were the comments were in MyBal uis Dufournet to bring this up ecirculation was a response to for High Voltage (>1000V)	December. cope.  not addressed or circullot and that he submit either in next working to the comments.	alated among the working go ted the comments and respond goroup meeting or as a revision.	onses to Matt Ceglia	ı.	
Voltage Circ American Na High-Voltage Symmetrical Specification  Document is expected to Last recirculation had It Comments came in to be The hope is to gain Rev Denis Dufournet mention Ken Edwards said that Rich York advised Denis The intent of the final reconstruction The intent of the final reconstruction No activity.  Std 1325-1996 IEEE Recoms Reporting Figure 1 Circuit Break Content See C37.10 above.	uit Breakers ational Standard for AC e Circuit Breakers Rated on a Current Basis— as Guide to be approved by Nescom in a negative which was out of so better include MVCB. Income approval next year. Income that his comments were the comments were in MyBal ais Dufournet to bring this up ecirculation was a response to for High Voltage (>1000V)	December. cope.  not addressed or circullot and that he submit either in next working to the comments.	alated among the working go ted the comments and respond goroup meeting or as a revision.	onses to Matt Ceglia	ı.	
Last recirculation had I     Comments came in to be The hope is to gain Revolution Denis Dufournet mention.     Ken Edwards said that Rich York advised Denis The intent of the final reconstruction.  C37.12.1 IEEE Guiden Circuit Break Content  No activity.  Std 1325-1996 IEEE Recommand Reporting Final Circuit Break See C37.10 above.	negative which was out of so better include MVCB.  yeom approval next year, oned that his comments were the comments were in MyBal his Dufournet to bring this up ecirculation was a response to for High Voltage (>1000V)	not addressed or circullot and that he submit either in next working the comments.	ted the comments and responsitions group meeting or as a revision	onses to Matt Ceglia		Published
Circuit Break Content  No activity.  Std 1325-1996  IEEE Recom Reporting Fit Circuit Break Circuit Break See C37.10 above.		HVCB	Bill Bergman		2007	Published
Std 1325-1996 IEEE Recom Reporting Ficircuit Break  See C37.10 above.						
Reporting Fig. Circuit Break  • See C37.10 above.		•				
	mended Practice for eld Failure Data for Power ters	HVCB	Pete Dwyer		R2008	Valid but requires reaffirmation or revision.
~37.20.6 4.76.kV to 38		•				
	8 kV Rated Grounding and ces Used in Enclosures	ADSCOM joint HVCB/SA	T. W. Olsen 919-365-2208 t.olsen@ieee.org		APPROVED 2007	
No activity.		•				<u> </u>
C37.59 Requirement Switchgear E	s for Conversion of Power Equipment	ADSCOM joint HVCB, SA, and LVSD	Pete Dwyer 610.296.1273 pete.dwyer@ieee.org		Approved 2007	
No activity						

C37.11-2003

IEEE Standard Requirements for

# HVCB Switchgear Subcommittee Minutes, 2008-10-24, Calgary, Alberta, Canada

C57.142	Guide to Describe the Occurrence and	HVCB	Steve Lambert			New joint working group with			
	Mitigation of Switching Transients					Transformer and Switchgear			
	Induced by Transformer and Switching					Committee			
	Device Interaction								
Steve La	• Steve Lambert was not in attendance. Rich York asked if anyone knew the status.								
<ul> <li>Kirk Sm</li> </ul>	Kirk Smith thinks that they have revised the draft and will put it out for ballot.								

C57.16, standard for series air-core reactors was discussed.

- This standard has an annex with TRV information which was "cut & pasted" from C37 information. This is out of their scope.
- This was first mentioned when Jeff Nelson was Switchgear Committee Chair. A joint working group was proposed with the Transformer Committee.
- No favorable response has been received.
- Jeff Nelson had talked with Transformer Committee Chair recently and is waiting on a response from the Chair on their "out of scope" work.
- Document has not balloted.
- The TRV work done in the Transformer Committee has not been approved by the Switchgear Committee.
- The 2 issues are: The information in the document itself and ADSCOM.

TLF TF	Transformer Limited Faults	HVCB	Ken Edwards		

- The question was asked: "Do we need to keep this task force going?"
- At the last meeting, Steve Lambert mentioned that the numbers have not shown significant changes in transformer capacitance values.
- Ken Edwards still has the data that has been submitted but it has not been compiled.
- We will continue to leave this as an agenda item.
- If anyone has data, submit to Ken Edwards.
- Yasin Musa asked how Steve Lambert had gotten his information that the changes have not been significant.
- Devki Sharma attends both Switchgear and Transformer committee meetings. He will take this information to the next Transformer meeting.
- Ken Edwards recommended that this task force be disbanded until we get more data.
- The agenda item has been moved to the list of Working Group table in this document.

### 7) Reports of Task Forces

a) Transformer Data for Transformer Limited Faults

Rich York

a. This item was discussed and moved to the table above.

### 8) Reports of AdsCom WG

a) Conversion Standards (C37.59)

Pete Dwyer

- a. Complete. Will be removed from agenda for next meeting.
- b) Common Clauses (C37.100.1):

Dave Stone

- a. Pulished. Will be removed from agenda for next meeting.
- c) Capacitance Switching

Neil McCord

- a. This is a Task Force and not a Working Group.
- b. Bill Long received a call from Neil McCord. Due to a promotion at work, he has resigned as chair.
- c. The group met and discussed the need to write a technical paper because there are many different documents with different capacitor switching requirements.
- d. A presentation may be made at the next Switchgear meeting (Asheville, NC) and decide whether to ask for PAR.
- e. Either the task force will be finished by next meeting or a working group will begin.

### 9) Reports of CIGRE

a) "Longer Line Fault" TRV CIGRE A3-19

Roy Alexander

- a. Ken Edwards filled in for Roy Alexander who was absent from this meeting and mentioned that Roy's opinion is that CIGRE will publish a report that will be very vague and not provide any real value. It will more or less mention that yes, there is a problem.
- b. Switchgear had been waiting on information from this CIGRE document to put numbers in C37.011, etc.
- c. Ken Edwards thinks we need to start a task force that will look at studies and come up with a plan to provide data to be used in other C37 documents. This should be done before .04 and .06 are opened up for next revision.
- d. A motion was made to start the task force mentioned above.
- e. The scope will only be limited to the line fault TRV problem.
- f. Will start at the next meeting with a review of the CIGRE data which is due out by the end of year.
- g. The motion was approved.
- h. A volunteer to chair the task force was requested.
- Roy Alexander would be a good choice for the chair, but since he was absent at this meeting could not be asked.
- j. Yasin Musa will be the interim chair pending an acceptance by Roy Alexander.
- b) CIGRE circuit breaker performance survey CIGRE A3-06

Bill Bergman

- a. The four years is up at the end of 2008. Data can still be submitted to Bill Bergman at **bergman@ieee.org**.
- b. There will be a presentation in Seoul on the statistical analysis of failure rates.
- c. Bill Bergman thinks that we can have someone from CIGRE come to Switchgear and make a presentation.

## 10) Old Business

a) Summer 2008 PES General Meeting in Pittsburgh- Circuit Breaker Tutorial

Rich York

a. There were 33 paid tutorial attendees.

F08HVCB agenda D1 doc.doc 8 of 9

- b. This tutorial incorporated a "revenue sharing plan". Out of the 9 speakers, 4 of them couldn't accept any of the revenue.
- c. The amount received was \$7075 with the shared amount being \$2387.
- d. \$1000 of the funds were donated to the Switchgear Committee which had a pay out of \$725.
- e. The net revenue to Switchgear was \$347.
- f. This was the most attended General Meeting with over 2200 attendees representing 59 countries.
- g. By most marks, greater that 30 attendees for a tutorial is considered to be an outstanding turnout.
- h. The presentations are available for download on the Switchgear Committee website.

### 11) New Business

a) No new business was discussed.

### 12) Future Meetings

a) Asheville, NC May 3-7, 2009

• Motion to adjourn was made and approved.