# 1. Introduction of Members and Guests

Bill Bergman

See F06HVCBa1.xls for attendance.

# 2. Approval of Minutes of Previous Meeting

Bill Bergman/Rich York

Approved as posted.

# 3. Discussion of IEEE patent policy

Bill Bergman

The chairman read for review the "IEEE-SA Standards Board Bylaws on Patents in Standards" and "Inappropriate Topics for IEEE WG Meetings". These are shown in F06HVCBa2.ppt.

4. Membership (See F06HVCBa3.doc for membership roster)

	Utility	Manufacturer	Independent /	Guests	Total Membership	
			Consultants/Corresponding			
Current	16	15	15		46	
membership						
Attendance	9	9	4	27		

# 5. Chairman's Report

Bill Bergman

Chairman (Bill Bergman): bergman@ieee.org 403-862-1504 Secretary (Rich York): rich.york@us.abb.com 724-696-1555

All WG Chairs are requested to maintain a roster of each WG and send to HVCB with example format of:

WG C37.12.1 – Guide for High Voltage (>1000V) Circuit Breaker Instruction Manual Content							
Name	Affiliation		Phone	Email			
Bill Bergman	PowerN	ex Associates Inc.	403-862-1504	bergman@ieee.org			
Rich York	ABB Inc	·	724-696-1555	rich.york@us.abb.com			

- Need for WG to work between IEEE Switchgear Spring and Fall meetings in order to accomplish goals of standards revisions or new development.
- Request for WG to:
  - o preserve background information on their individual working group documents, and
  - o preserve commitments to consider specific issues in future revision,
  - o preserve suggestions for future revision from various sources
- Volunteer to review and update HVCB portion of Switchgear website?
- Minutes of meeting to Rich York by 2006-10-06!!!!!
- Casual attendance at single meeting at no charge to encourage attendance
- Some drafts & corrigendum are out for ballot and require greater participation for a valid ballot
- Announcements for 2007
  - o Rich York will become the chair of HVCB
  - Rod Sauls will become the secretary of HVCB

### 6. Reports of Working Groups

a) Technical Paper Reviews
 One paper was accepted, two were rejected and five are currently under review.

Jeff Nelson

b) C37.04, C37.06, C37.09 and NEMA SG4 – Recommendation for revision Jeff Nelson/Georges Montillet

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The next revision cycle for C37.04 & C37.06 will combine these into a single document along with relevant sections of NEMA SG4. C37.09 will incorporate the remaining area of NEMA SG4 that deal with testing. This will accomplish the goal of the NEMA Technical Committee to eliminate SG4.

#### c) WG Activities

Status of standards development and balloting activities are shown in F06HVCBa4.doc

d) C37.06 Georges Montillet

See F06HVCBa5.doc for WG meeting minutes and attendance.

### e) C37.12.1 Quality & Reliability

Bill Bergman

See F06HVCBa6.doc for meeting minutes.

# f) Proposed Annex for IEEE C57.21 "Dielectric Stresses Imposed on Shunt Reactors During Switching"

Bill Long

The Transformer Committee has asked the Switchgear Committee if there is interest in joint participation in this WG. SWGR has indicated there is little or no interest in participation. This item will be removed from the agenda for the next meeting.

### g) C57.16 "IEEE Standard Requirements, Terminology, and Test Code for Dry-Type Air-Core Series-Connected Reactors" proposed annex on the TRV effects of series reactors on circuit breakers

Jeff Nelson

(Jeff Nelson, Denis Dufournet, Steve Lambert, Roy Alexander, Mel Smith, Leslie Falkingham, Anne Bosma, Ken Edwards, Marcel Fortin, Bill Long, Nigel McQuin, Alan Kollar & Yasin Musa) The HVCB members listed above have all agreed to participate in preparing and reviewing a jointly prepared paper on this subject.

# h) Draft PC57.142 "A Guide To Describe The Occurrence and Mitigation Of Switching Transients Induced By Transformer And Switching Device Interaction Bill Bergman

A conference call was held on Tuesday October 3<sup>rd</sup> with members of the Transformer Committee WG that prepared this document. There were some fundamental errors in the text that SWGR Committee members could assist in preparing a more accurate, and technically sound, document. It was agreed that a joint Transformer – Switchgear Committee WG be formed to formalize this arrangement. The Transformer Committee WG agreed to revise the PAR accordingly.

# 7. Reports of Task Forces

a) Transformer Data for Transformer Limited Faults

Mel Smith

The need to collect additional test data was emphasized. Not much progress has been made in this area. Doble previously agreed to supply field test data that is collected but no data has been received to date. The test procedure and connection diagrams for running the tests will be posted on the SWGR website.

#### 8. Reports of AdsCom WG

a) Conversion Standards (C37.59)

Pete Dwyer

Nothing to report for HVCB.

b) Common Clauses (C37.100.1):

Dave Stone

### c) Capacitance Switching

Neil McCord

(Reported by Roy Alexander) Informal discussions of Common Clauses for Capacitance switching raised a number of questions & comments. Harmonizing all capacitor switching applications for all voltage rating simply for the sake of harmonization is not realistic. Should this be limited to 100 kV and above? Should this apply only to capacitor banks and exclude line and cable switching? (for distribution systems, there are

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much higher number of operations and endurance capabilities desired). There are common applications, but not necessarily the same level of expectations for all voltage ratings.

# 9. Reports of CIGRE

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

Roy Alexander

A report on the findings of this WG is expected to be issued by the end of 2006. To summarize, a fault 'far' out on a transmission line can result in a TRV imposed on the breaker higher than what is currently specified in the published IEEE Standards. If the breaker is applied at 70% - 80% of its rating, then this higher TRV is already covered by the T60 test requirements. If the breaker is applied above ~80% of its rating, the TRV may be higher than what the standards specify. The recommendation of this WG is for the user to consult with the circuit breaker manufacturer to determine the suitability of a breaker to be applied under this fault scenario.

b) CIGRE circuit breaker performance survey CIGRE A3-06

Bill Bergman

We are currently in the 2<sup>nd</sup> year of a four-year survey. Only two North American utilities are currently participating, both from the US. Some countries choose not to participate as they fear the survey results may be used to benchmark their performance.

## 10. Old Business

a) "Expectations of Controlled Closing"

Roy Alexander

See F06HVCBa7.doc for initial thoughts and proposals for controlled closing performance.

### 11. New Business

No new business was reported.

### 12. Future Meetings

a) St. Pete Beach, FL

May 6-10, 2007

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