

**REPORT of
C37.100.1 WORKING GROUP
ADSCOM SUBCOMMITTEE
(Milwaukee, WI; October 2, 2006)**

The Working Group for C37.100.1 *Common Requirements for High Voltage Power Switchgear* met on Monday morning, October 2, 2006. Twelve WG members and fifteen guests were present. See attachment 1 for the attendance list.

The IEEE policy for patents and guidelines for the conduct of meetings (inappropriate topics of discussion) were reviewed.

The Chairman gave a brief review of the first re-circulation ballot that closed on September 15, 2006. There were 56 comments received in this ballot. Results of the ballot are: 86% return with 96 % approval; there are five negative ballots remaining.

Re-circulation Ballot Comment Summary

- Editorial:
- General & Unclassified
- Technical
- Total:

<div style="font-size: 4em; font-family: cursive;">Draft</div>
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The 56 comments were broken into three categories as noted below. The Chairman had proposed resolutions to the 27 comments in category 3; these were not discussed. The balance of the meeting was devoted to a discussion of the 29 comments in categories 1 & 2. A resolution for each comment was reached.

The Chairman requested the WG members to review the proposed resolutions to each comment and report his/her agreement or provide comments. This feedback was requested by October 20, 2006.

Category #1: Comments on more significant issues or questions, mostly technical 16

Category #2: Comments for brief review and agreement 13

Category #3: Comments with no controversy anticipated, mostly editorial 27

The comments discussed covered the following general topics:

- Terminology & word choice
- Ballot information
- Scope
- Test: routine dielectric, 50 Hz vs. 60 Hz, momentary test duration
- Definitions
- Temperature rise table
- Ratings tables, proposal for future ratings
- Altitude Corrections Factors

Altitude Correction Factors

This difficult issue appears to be reaching a consensus. One of the negative ballots pertained to this provision. The points or concerns discussed in previous meetings remain as:

- a) The physics of the matter should be recognized. Altitude correction for external insulation voltage withstand capability varies with the atmospheric pressure starting from sea level, and with time (local weather conditions).
- b) Tradition should not be ignored. Switchgear has been applied successfully for many decades with no correction for altitude up to 1000 m. IEC continues this approach.
- c) IEEE should be careful not to adopt an approach that would further confuse the user community and place equipment at a competitive disadvantage vs. IEC-rated equipment simply because of a different approach to this question.
- d) The rating of equipment should not be confused with insulation coordination of a system. It is up to the system designer (system coordination expert) to determine what design factors should be assigned to each piece of the system (line, tower, transformer, surge arrester, and switchgear).
- e) The standard should make it clear that the traditional approach of starting altitude correction factors at 1000 m implies a 13% reduction in the design insulation coordination margin. Furthermore this reduction carries through to the higher altitudes according to the traditional approach.

It was agreed that the first three sections of the proposed Annex B as shown in the latest ballot draft C37.100.1/D7 should be moved to the main text of the document and revised to emphasize the points noted above.

The WG plans to have one more re-circulation ballot before the end of the year.

The meeting adjourned at 12:00 noon.

Draft

David T. Stone, Working Group Chairman, C37.100.1
ADSOM Subcommittee
08 October 2006

Attachment 1: Attendance List:
IEEE C37.100.1 WG Meeting October 2, 2006

Name	Affiliation	
Bergman, Bill	PowerNex Associates, Inc	WG Member
Billings, Stan	Mitsubishi Electric Pwr Products, Inc	WG Member
Bonner, Antone	Cooper Power Systems	
Burse, Ted	Powel Electric Mfg Co., Inc.	WG Member
Capra, Raymond L.	Consultant	
Ceglia, Matthew	IEEE	
Dufournet, Denis	AREVA T&D	
Dwyer, Peter W.	G.E.	WG Member
Farr, Larry	Eaton Electrical Group	WG Member
Fortin, Marcel	Consultant: Electrical T& D	
Heiermeier, Helmut	ABB Baden	
Lambert, Stephen R.	Shawnee Power Consulting, LLC	
Liu, Huay	Southern California Edison	
Mayle, Frank	Technibus	
Montillet, Georges F.	ARIVA T&D	
Muench, Frank. J.	Cooper Power Systems	WG Member
Nelson, Jeffrey	Tennessee Valley Authority	WG Member
Parry, Neville	Eaton	
Schneider, Carl	Schneider Electric	WG Member
Schoonenberg, Gerard	Eaton Holec	
Sharma, Devki	Consultant	
Smith, R. Kirkland	Eaton	
Smith, H. Melvin	Siemens (Retired)	WG Member
Stone, David T.	DTS Technical Services	WG Member
Storms, Alan	Storms Advisory Services	WG Member
Taylor, Chand Z.	Eaton Electric	WG Member
York, Rich	ABB, inc	