

**SWITCHGEAR ASSEMBLIES SUBCOMMITTEE
MINUTES OF THE SPRING 2007 MEETING**

**TRADE WINDS ISLAND GRAND
ST. PETE BEACH FLORIDA**

The meeting was called to order by Chair, T. Olsen, at 3:48 PM on May 9, 2007 with the introduction of the following members and guests:

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| Members: | C. Ball P. Barnhart T. Burse E. Byron P. Dwyer | D. Edwards S. S. Gohil D. Lemmerman A. Livshitz F. Mayle | D. Mazumdar A. Morgan A. Morse T. Olsen R. Puckett | J. Smith A. Storms P. Sullivan M. Wactor |
| Guests: | M. Abrahamsen H. Attia J. Baskin D. Dunne L. Farr M. Flack | K. Flowers M. Fortin P. Glaesman N. Gunderson R. Hartzel H. Josten | T. Meeks S. Meiners C. Morris M. Orosz A. Patel I. Profir | S. Riopel C. Ross S. Toe J. Webb |
| Excused: | J. Jerabek(CM) | W. Laubach(CM) W. McKay | G. Nourse P. Notarian | E. Peters S. Telander(CM) |
| Absent: | J. J. Dravis | R. K. Iyer | G. Sakats | |

The newly issued IEEE-SA rules on Patents were reviewed prior to further discussions. All five slides were shown. An opportunity was given for participants to identify patent claims, patent applications, and/or holders of patent claims/patent application claims that may be essential for the use of a standard. There were no responses. The IEEE-SA patents policy must be reviewed during every working group meeting. The new rules can be accessed on <http://standards.ieee.org/board/pat/pat-slideset.pdf>.

The minutes of the Fall 2006 Switchgear Assemblies Subcommittee meeting at the Hyatt Regency, Milwaukee, Wisconsin were accepted with one amendment (corrected spelling of Getman).

ADSCOM Report

Mr. Olsen reported that:

- Various SA working groups (C37.20.2, C37.20.3) must consider appropriate seismic requirements, and consider revision of C37.81.
- C37.100 Definitions – IEEE will allow verbatim use of definitions in our standards. Switchgear will be beta participant for new electronic IEEE 100, to evaluate whether we can drop C37.100 and use IEEE 100 instead.
- C37.100.1 Common Clause will be approved momentarily by Standards Board. RevCom approved May 5.
 - ADSCOM motion requires that the subcommittee working groups consider C37.100.1 in the revision of standards, in accordance with the guidance in Annex A of the document.
 - C37.100.1 process: For the present, D. Stone and L. Farr will review documents on request and provide guidance in adoption of C37.100.1 clause requirements.
 - The Switchgear S/C Chairs are directed to instruct Working Groups involved with the creation and/or revision of document under their respective scope to consider the

- incorporation of C37.100.1 into those documents as suggested in Annex A of C37.100.1 during the creation or revision process where appropriate.
- Subcommittee Chairs will incorporate a status report concerning the progress of adoption of C37.100.1 into reports to ADSCOM.
 - IEEE Delegation to ASC C37 - The reconstituted IEEE delegation has 5 voting members plus 2 alternates. Voting members are R. York (HVCB), D. Edwards (LVSD), S. Meiners (RODE), T. Olsen (SA), M. Wactor (Standards Coordinator and Chair of delegation), with J. Leach (HVF) and A. Dixon (HVS) as alternates.
 - C37.59 Conversions for Power Switchgear – The Scope and Purpose have been revised. Comments have been reviewed, and the recirculation ballot will be initiated shortly.
 - C37.301 Partial Discharge Measurements - IEC60270 will be used as the basis of the standard.
 - Dual Logo Standards – The process for attaining dual logo status is not defined. IEEE and IEC have not thought through the details. IEEE C37.60 (IEC 62271-111) will serve as the test case.
 - Upcoming Meetings - 14 – 18 October, 2007 – Philadelphia (Holiday Inn – 400 Arch St. Downtown)

WORKING GROUP REPORTS

The following working group reports were presented:

- C37.20.1b (Standard for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear Amendment 2: Additional Requirements for Control and Auxiliary Power Wiring in dc Traction Power Switchgear) - T. Burse - Document approved 12/07/2006. Working group disbanded.
- C37.20.2: (Standard for Metal-Clad Switchgear) - M. Wactor – New PAR will be submitted. Continued discussion of comments received on D2. Sections on flame resistance test and seismic test cross over to other documents. A task force to review each of the tests was requested of the SA Subcommittee. The flame resistance task force consists of C. Ball, P. Barnhart, T. Olsen, M. Orosz, J. Smith, A. Storms, and M. Wactor. The seismic test task force consists of C. Ball, E. Bryon, R. Hartzel, D. Lemmerman, T. Olsen, and M. Wactor. The task forces will report back to the SA Subcommittee at the fall 2007 meeting.
- C37.20.3 (Standard for Metal-Enclosed Interrupter Switchgear) - C. Ball - First working group meeting held. Sections of 20.3 were divided among Working Group members to coordinate with C37.100.1 Common Clause.
- C37.20.4 (Standard for Indoor AC Switches (1kV – 38kV) for Use in Metal-Enclosed Switchgear) – C. Ball - First working group meeting. The ratings in C37.22 (Preferred Ratings and Related Required Capabilities for Indoor AC Medium Voltage Switches Used in Metal-Enclosed Switchgear) will be incorporate into Section 5 of C37.20.4. Sections were divided among Working Group members to coordinate with C37.100.1 Common Clause.
- C37.20.6: (Standard for 4.76 kV to 38 kV Rated Grounding and Testing Devices Used in Enclosures) – T. Burse - All comments addressed. Title to be changed to “Standard for 4.76kV Rated Ground and Test Devices Used in Enclosures”. Draft will be sent out for one more review before balloting.
- C37.20.7: (Guide for Testing Medium-Voltage Metal-Enclosed Switchgear for Internal Arcing Faults) - M. Wactor - Conditionally approved by RevCom 06/2006; withdrawn 12/06. There are two remaining negative ballots. Working Group agreed to keep as a Guide, not change the document to a Standard. New wording on testing current limiting devices to be prepared and recirculated to the Working Group.

OLD BUSINESS

- C37.121-1989 (R2000) (Unit Substations) Reaffirmed 11/2006. This document must be revised by 2011.
- IEC activities – T. Burse:

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| IEC 60298 (62271 -200) | AC Metal-Enclosed Switchgear and Controlgear for Rated Voltages above 1 kV and up to and Including 52 kV – Being revised. Draft 12 of C37.20.7 offered as an example. |
| IEC (62271 -208) | Methods to quantify the steady state, low frequency EMF generated by HV switchgear assemblies and HV/LV prefabricated substations - May require measurements and documentation of EMF in switchgear assemblies. T. Burse would like comments on this document to take back to the US National Committee by 7/06/07. The file is located at http://forums.nema.org/wb/upload/17C%5F404%5FCD%5F05%2D01%2D07%2Epdf |

- ASC C37 – Reconstituting Electric Power and Light delegation. Voting on two documents.

NEW BUSINESS

- Strong negative opinions expressed concerning the form used for comments when balloting IEEE standards. The form is difficult to use making comments incomplete and unclear. The 8c form used by the Switchgear Committee is the preferred form for offering comments.
- A request for interpretation concerning testing of insulating boots was considered by the C37.20.2 Working Group. It was agreed that the existing C37.20.2 standards does not address the issue. The issue will be addressed in the revision now in process. A formal response will be prepared. Working Group chairs that receive requests for interpretation should notify the SA Subcommittee Chair of receiving such a request.
- T. Burse made a motion that a PAR be started to create C37.20.8 for Low Voltage DC Traction Switchgear requirements. This would be a joint sponsorship with the Vehicle Technology Society. The motion was seconded and after some discussion passed. The first Working Group meeting will be fall of 2007. The Working Group will include T. Burse, C. Ross, D. Mazumdar, and G. Nourse.
- T. Burse made a motion that, after C37.20.1 is reaffirmed, a PAR will be created to incorporate C37.20.1.a and C37.20.1.b into C37.20.1 and then remove the DC traction items from C37.20.1. This motion was seconded and passed. The reaffirmation of C37.20.1 was launched 4/20/07.
- New members of the SA Subcommittee are Alan Storms, Alan Morris and Paul Sullivan. They have been named members in recognition of years of active participation in the process of updating and revising C37.20 Standards. J. Dravis was named an Honorary member. G. Sakats and R. Iyer have been inactive for a number of years and have been removed from the membership.
- **Procedure for Meeting Rooms!** Meeting arrangements must be made through the Subcommittee Chair. Working Group chairs, advise the Subcommittee Chair of your working group room requirements (preferred dates, number of sessions (one session = 1 hr 45 min), number of persons expected, and A/V needs). The Subcommittee Chair must send the WG needs to the Committee Secretary at least 10 weeks before the next meeting. So, WG chairs advise Ted Olsen by July 6, 2007 so Ted can advise Ken Edwards by July 13, 2007.

- Working Group chairs, give changes to your working group memberships to A. Morgan by the end of the meeting, and provide electronic copies of WG reports to A. Morgan at the end of the meeting today.
- Switchgear Main Committee—items to be reported verbally during the main committee meeting were reviewed.
- Future Meetings:

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| Oct. 14-18,2007 | Philadelphia |
| May 4-8, 2008 | Orlando FL |
| Fall 2008 | Portland or Calgary |
| Spring 2009 | If you would like the IEEE Swgr Committee to come to your city, please contact Ken Edwards or Bill Long |

The meeting adjourned at 5:00 PM.

Minutes submitted by: A. F. Morgan
Secretary