

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

**HOLIDAY INN – HISTORIC DISTRICT
PHILADELPHIA PENNSYLVANIA**

The meeting was called to order by Chair, T. Olsen, at 3:45 PM on October 17, 2007 with the introduction of the following members and guests:

Members (17):	C. Ball T. Burse P. Dwyer D. Edwards	D. Lemmerman A. Livshitz F. Mayle D. Mazumdar	A. Morgan A. Morse P. Notarian T. Olsen R. Puckett	J. Smith A. Storms P. Sullivan M. Wactor
Guests (18):	M. Abrahamsen D. Colaberardino J. Coomer M. Flack	K. Flowers D. Giraud N. Gunderson R. Hartzel H. Josten	S. LaPidus C. Morris A. Patel A. Rowell	R. Sarin C. Schneider D. Smith P. Terry J. Toney
Excused (10):	P. Barnhart E. Byron J. J. Dravis	S. S. Gohil J. Jerabek(CM) W. Laubach(CM)	W. McKay G. Nourse	E. Peters S. Telander(CM)

Absent (0):

The 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 rules can be accessed on <http://standards.ieee.org/board/pat/pat-slideset.pdf>.

The minutes of the Spring 2007 Switchgear Assemblies Subcommittee meeting at St. Pete Beach, Florida were approved.

ADSCOM Report

Mr. Olsen reported that:

- PC57.142 "Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformer, Switching Device, and System Interaction". Original PAR sponsored by Transformer Committee was allowed to expire. A new PAR, cosponsored by Switchgear and Transformer Committees, has been approved. Switchgear participation is being organized by Steve Lambert.
- C37.100 "Definitions for Power Switchgear" is woefully obsolete (1992). We have no mechanism to revise it. Alternatives are to let it be withdrawn and use the IEEE 100 Dictionary, or to reposition it as a compendium of definitions that would not require a ballot. A 'beta' version of the future IEEE Dictionary database was used in demo-mode for a period of some months by several members of the Switchgear Committee, with generally favorable reviews. IEEE-SA is some months away from a formal release of the on-line system, and has not determined whether the database will be available for working group use. No formal decision on future direction was made, but consensus appears to be that we will not undertake effort to revise the document in any event.
- Interpretations: It would appear that the difficulties of years past with interpretations have been resolved.
- Balance, and lack of dominance: IEEE-SA is developing new rules to avoid dominance. Ballot groups for documents cannot have dominance, nor can the Main Committee. It is unclear whether the rules on lack of dominance will be extended to apply to subcommittees and / or to working groups.
- Web pages, meeting booklet, minutes: It was requested that the information to update web pages and the meeting booklet be provided within one month after the meetings. Subcommittee (and their working groups) minutes are to be provided within one month after the meetings.
- The IEEE-SA process for designating working groups, and for designating chairs, is not working well. Our standards coordinator, M. Wactor, is working with IEEE-SA to get the organization of working groups

under each subcommittee realigned. An instruction sheet will also be created to explain how an individual updates their profile on the IEEE-SA My Project system to show interest in particular working groups. There should be more information on this at the Spring, 2008 meeting.

- The registration process will be changed to improve usability, convenience, and increase security.
- Meeting schedule: discussion of moving ADSCOM to Thursday before or after the Main Committee meeting. We have more total meetings than we have meeting rooms, and during both the ADSCOM meeting and the Main Committee meeting, we use only one of our five meeting rooms, hence paying for rooms that we do not use. Essentially, moving ADSCOM away from Tuesday morning would effectively open eight half-sessions for working group meetings.

WORKING GROUP REPORTS

The following working group reports were presented:

- C37.20.1 (Standard for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear) - T. Olsen - Document reaffirmed 9/27/2007. A PAR will be submitted early in 2008 to incorporate C37.20.la and C37.20.lb and to remove DC traction items from this standard.
- C37.20.2: (Standard for Metal-Clad Switchgear) - M. Wactor – New PAR will be submitted early in 2008. Background material on seismic testing was prepared by R. Hartzel. Seismic task force will share results with C37.20.1 and C37.20.3. Coordination with C37.100.1 will be attempted. Submitted comments were reviewed and assignments for reviewing specific clauses were made. Comments are due by November 15th. A draft will be out in approximately 60 days.
- C37.20.3 (Standard for Metal-Enclosed Interrupter Switchgear) - C. Ball – PAR was approved 6/7/2007. The Standard will be renumbered in accordance with C37.100.1 Common Clauses. Motion passed to replace steel gauge with upper and lower limits of thickness based on industry standards. Methods other than paint to protect the enclosure against corrosion will be considered. Submitted comments were discussed.
- C37.20.4 (Standard for Indoor AC Switches (1kV – 38kV) for Use in Metal-Enclosed Switchgear) – C. Ball – PAR was approved 6/7/2007. The Standard will be renumbered in accordance with C37.100.1 Common Clauses. Submitted proposals on coordinating with C37.100.1 were discussed.
- C37.20.6: (Standard for 4.76 kV to 38 kV Rated Grounding and Testing Devices Used in Enclosures) – T. Burse – This Standard is on the agenda for the 12/4/2007 Rev Com meeting. There is one unresolved negative.
- C37.20.7: (Guide for Testing Medium-Voltage Metal-Enclosed Switchgear for Internal Arcing Faults) - M. Wactor – Approved by Rev Com 9/27/2007. An amendment will be needed to clarify some issues with testing LV equipment. The Working Group did not meet.
- C37.59 (Requirements for Conversion of Power Switchgear Equipment) – P. Dwyer - This Standard is on the agenda for the 12/4/2007 Rev Com meeting.
- C37.100.1 (Common Clauses) - This Standard has been published.

OLD BUSINESS

- C37.121-1989 (R2000) (Unit Substations) Reaffirmed 11/2006. J. Smith will chair this Working Group. A PAR should be submitted and a Working Group should be formed in 2008.
- C37.81 Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies –The task force assembled for C37.20.2 will be maintained for this standard. The seismic test Task Force consists of C. Ball, E. Bryon, R. Hartzel, D. Lemmerman, T. Olsen and M. Wactor. IEEE 693 Recommended Practice for Seismic Design of Substation should be considered when revising this standard.
- C37.82 Qualification of Switchgear assemblies for Class 1E applications in Nuclear Power Generating Stations – A revision effort should begin in 2008.
- C37.23 Metal-Enclosed Bus and C37.24 Guide for Evaluating the Effect of Solar Radiation on Outdoor Metal-Enclosed Switchgear should be reaffirmed in 2008. For C37.24 we should consider adding references to global atmospheric organizations and requesting a dual logo. T. Burse with discuss this with D. Gohil.
- IEC activities – T. Burse:

IEC 60298 (62271-200)	AC Metal-Enclosed Switchgear and Controlgear for Rated Voltages above 1 kV and up to and Including 52 kV – Met in Berlin Germany September 27-28. Mr. Burse will circulate the document for comments.
IEC (62271-207)	Seismic document – The USNC voted “No”, however the questionnaire passed.
IEC (62271-208)	Methods to quantify the steady state, low frequency EMF generated by HV switchgear assemblies and HV/LV prefabricated substations – The Technical Specification will be published as an international Standard. The USNC voted “No”, however the questionnaire passed.

- ASC C37 – Once the Electric Power and Light delegation is reconstituted, voting will commence on the new operating procedures, C37.50 Low Voltage AC Power Circuit Breakers Used in Enclosures –Test Procedures, and C37.51 Metal-Enclosed Low-voltage AC Power-Circuit Breaker Switchgear Assemblies – Conformance Test Procedures.

NEW BUSINESS

- **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 March 10, 2008 so Ted can advise Ken Edwards by March 17, 2008.
- 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:

May 18-22, 2007	Orlando FL (Disney's Coronado)
Fall 2008 (late Sept or early Oct)	Calgary, Canada
Spring 2009	Nashville TN or Asheville NC
	If you would like the IEEE Swgr Committee to come to your city, please contact Ken Edwards or Bill Long

The meeting adjourned at 4:35 PM.

Minutes submitted by: A. F. Morgan
Secretary