

**SWITCHGEAR ASSEMBLIES SUBCOMMITTEE
MINUTES OF THE FALL 2005 MEETING**

**OMNI MONT-ROYAL HOTEL
MONTREAL, QUEBEC, CANADA**

The meeting was called to order by acting Chair, A. Morgan, at 1:39 PM on October 5, 2005 with the introduction of the following members and guests:

Members:	C. Ball P. Barnhart T. A. Burse E. R. Byron	P. Dwyer D. J. Edwards S. S. Gohil F. Mayle	M. Wactor D. Mazumdar A. Morgan T. W. Olsen	R. J. Puckett J. E. Smith
Guests:	J. Baskin D. Colaberardino D. Dunne L. Farr	W. Fernihough M. Flack K. Flowers N. Gunderson	H. Josten C. Lam S. Meiners A. Morse	M. Orosz C. Schneider C. Taylor
Excused:	J. J. Dravis J. E. Jerabek	W. E. Laubach D. J. Lemmerman	P. Notarian G. R. Nourse	E. A. Peters S. H. Telander
Absent:	R. K. Iyer	A. Livshitz	G. Sakats	

The minutes of the Spring, 2005 Switchgear Assemblies Subcommittee meeting at the Tradewinds Island Grand Resort, St. Pete Beach, FL. were accepted as distributed.

ADSCOM Report

ADSCOM Committee Report: Ms. Morgan reported that:

- M. Glinkowski requested input on improvements of the Switchgear Committee website and assistance in maintaining the website. An assistant to M. Glinkowski is needed, at least in part to provide backup when he is traveling.
- Working groups and subcommittees should have the agenda in near final form at least 30 days before the next meeting so that they can be posted on the website. T. Burse suggested that the subcommittee should be responsible for its webpage, and should significantly increase the content from that presently shown, which is just the scope of the subcommittee.
- Metrification: We are allowed to use dual units in standards. Metric is to be listed first, with English units in parenthesis.
- Operating procedures (O&P manual) are under review.
- C37.100: The subcommittee must appoint a representative to a task force (or working group) that is needed to get this revised. IEEE-SA is being asked to move C37.100 to a status similar to IEEE 100, a compilation of definitions from balloted standards. A volunteer is solicited.
- C57.142 "A Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformer and Breaker Interaction" has been balloted and is very biased against circuit breakers. We need to make our issues known.
- Rotation of officers in the subcommittees needs to be addressed. This will be an issue in the revision of the revised O&P manual.

WORKING GROUP REPORTS

The following working group reports were presented:

- C37.20.1a: (Standard for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear -- Amendment 1: Short-Time and Short-Circuit Withstand Current Tests; Minimum Areas for Multiple Cable Connections) – T. Burse. The D11 recirculation ballot closed June 20, with 94% return (72 of 76) and 100% affirmative (71 of 72), 1% negative (1 of 72), with 1 abstention. Approved by IEEE-SA Standards Board on Sept. 22, 2005. The working group is now disbanded.
- C37.20.6: (Standard for 4.76 kV to 38 kV Rated Grounding and Testing Devices Used in Enclosures) – T. Burse. The existing document was approved in 1997 and reaffirmed in 2002 with comments. A revision effort is required. Working group will consist of T. Burse (chair), T. Olsen (vice-chair), P. Dwyer, N. McQuin, D. Mazumdar, A. Morgan, J. Smith, A. Livshitz, P. Barnhart, D. Gohil, M. Orosz, W. Laubach, P. Sullivan, and P. Dilillo. The first meeting should take place at the Spring, 2006 meeting. A PAR will be submitted by the end of October. The intent is to use normative references to C37.100.1 to the extent reasonable.
- C37.20.7: (Guide for Testing Metal-Enclosed Switchgear rated 1kV through 38kV for Internal Arcing Faults): The D7 ballot closed May 5, with 78% return (78 of 97) and 77% affirmative (60 of 78), 19% negative (15 of 78), and 3 abstention. Ballot comments were discussed and decisions reached. Negative balloters will be contacted, and a re-circulation ballot will be initiated approximately Nov. 1.

At the Spring, 2005 meeting of the Switchgear Assemblies subcommittee, a motion passed to require that, at the next revision cycle, C37.20.7 be elevated from the status of a "Guide" to a "Standard".

- C37.21 (Control Switchboards): Approved by the IEEE-SA Standards Board on June 9, 2005. Deadline for comments to ANSI was Sept. 20, 2005. Scheduled publish date by IEEE-SA is Dec. 8, 2005. The working group is now disbanded.
- C37.81-1989 (Guide for Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies) – D. Lemmerman: Reaffirmed by IEEE-SA Standards Board on May 10, 2005. No further activity required.
- C37.100.1 (Common Clauses) - T. Burse (for D. Stone): D5 ballot: closed April 3, 83% affirmative, 17% negative, 501 comments (down from 1094 on D3 ballot). Resolutions were agreed to, and will be communicated to the negative balloters. Altitude correction factors will change but will not be exactly as in IEC.

OLD BUSINESS

- C37.20.3, C37.20.4, and C37.22 MEI Switchgear and related standards. IEEE 1247 is in the final stages of re-balloting, and approval can probably be anticipated in 2005. We need to begin revision effort, probably later in 2006.
 - C37.20.3-2001 (Metal-Enclosed Interrupter Switchgear) – Revisions needed after approval of IEEE 1247. The subcommittee authorized a re-affirmation ballot, to be initiated early in 2006.
 - C37.20.4-2001 (Indoor AC Switches (1 kV–38 kV) for Use in Metal-Enclosed Switchgear) - - Revisions needed after approval of IEEE 1247, and it may be desired to merge C37.22 ratings into the document as part of the revision. The subcommittee authorized a re-affirmation ballot, to be initiated early in 2006.

- C37.22-1997 (R2003) (Preferred Ratings and Related Required Capabilities for Indoor AC Medium-Voltage Switches Used in Metal-Enclosed Switchgear): This was transferred from NEMA in 2003. It uses a peak factor of 260% in line with the new generation of standards, but contains a momentary (rms) rating (160%) that is still based on the historic 270% peak factor. It may be desired to merge C37.22 ratings into C37.20.4 when a revision effort on C37.20.4 begins.
- C37.121-1989 (R2000) (Unit Substations) Re-affirmation ballot needed in 2005. The chair will launch the reaffirmation ballot very shortly.
- MV GIS Application Guide – P1663 (Guide for the Application of Medium Voltage Gas-Insulated Substations 1kV to 52kV) -- (T. Olsen) – The Substation Committee has initiated a project (PAR approved 12-August-2004) to create a MV GIS Application Guide. T. Olsen will be on the working group, and T. Burse will also monitor.
- DC Switchgear – P1653.3 (Standard Wiring Practices and Requirements for Traction Power Metal-Enclosed DC Switchgear) -- T. Burse – The Vehicular Technology Society – Rail Group submitted a PAR for a document that infringes on the charter of the Switchgear Committee, and of C37.20.1. The project was not approved by the IEEE-SA Standards Board in September. The Switchgear Assemblies subcommittee authorized formation of a working group for an amendment to C37.20.1 for wiring requirements for low voltage dc switchgear for transit applications. T. Burse will chair, with T. Olsen (vice-chair), D. Mazumdar, G. Nourse, D. Dunn, A. Morse, and N. Gunderson in the working group. An effort will be made to get participation from the vehicular transportation.
- IEC Activities (SC 17C MT14) – (T. Burse) PES Switchgear Committee liaison representative to SC 17C MT14. A copy of the IEC SC17C status report (17C/359/INF) was distributed.
- ASC C37: Documents under ASC C37 responsibility are current. Ballots will be issued shortly for:
 - Reaffirmation of C37.50.
 - An amendment to C37.51 to coordinate with C37.20.1a.
 - Revised operating procedures to reflect new ANSI Essential Requirements.
 A revision effort on C37.50 will be initiated when C37.13 revisions are firmed up.
- Switchgear Assemblies document status review: The document status summary was distributed and revisions solicited. This lists all documents that this subcommittee sponsors or co-sponsors. It will be available with the minutes.
 - C37.121: A reaffirmation ballot will be initiated shortly.
 - C37.20.2: Working group for revision formed. Members: M. Wactor (chair), T. Olsen (vice-chair), T. Burse, E. Byron, P. Dwyer, D. Edwards, L. Farr, D. Gohil, F. Mayle, D. Mazumdar, A. Morgan, M. Orosz, R. Puckett, C. Schneider, J. Smith, C. Tailor.

NEW BUSINESS

- IEEE-SA: Use of MyBallot requires internet access and electronic communications ability, and also requires an IEEE Web Account. Paper ballots are no longer permitted.
- IEEE-SA patent policy: The IEEE-SA patents policy must be reviewed during every working group meeting. The patent materials are available at <http://standards.ieee.org/board/pat/pat-slideset.pdf>.
- **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 Dave Lemmerman by Feb 20, so he can advise Bill Long by Feb 27.

- Working Group chairs, give changes to your working group memberships to Ted Olsen by the end of the meeting, and provide electronic copies of WG reports to Ted Olsen at the end of the meeting today.
- Subcommittee Officers: The present officers have been in office for 4 years. The subcommittee elected new officers T. Olsen, chair, and A. Morgan, secretary.
- Switchgear Main Committee—items to be reported verbally during the main committee meeting were reviewed.
 - Working groups have been formed for revisions to C37.20.2 for metal-clad switchgear, and for an amendment to C37.20.1 to cover wiring requirements for dc transit switchgear. Additional working group participation will be sought from the vehicular technology society rail transit group.
- Future Meetings:

May 7-11, 2006 (subject to change if IEEE PES T&D is rescheduled for these dates)	San Luis Resort Hotel, Galveston Island, TX
Fall 2006	Milwaukee, WI
Spring 2007	Vancouver, BC, Canada
Fall 2007	Pittsburgh, PA
Spring 2008	Philadelphia, PA

The meeting adjourned at 3:35 PM.

Minutes submitted by: T. W. Olsen
Secretary