

**SWITCHGEAR ASSEMBLIES SUBCOMMITTEE
MINUTES OF THE SPRING 2010 MEETING**

**Sheraton Myrtle Beach Convention Center Hotel
Myrtle Beach, SC**

The meeting was called to order by Chair, A. Morgan, at 3:45 PM on April 28, 2010 with the introduction of the following members and guests:

Members: (18)	C. Ball P. Barnhart T. A. Burse D. J. Edwards L. Farr	S.S. Gohil D. Lemmerman A. Livshitz F. Mayle D. Mazumdar	A. Morgan A. Morse T. W. Olsen R. Puckett J. E. Smith	A. Storms P. Sullivan M. Wactor
Guests: (14)	R. Bugaris E. Dullri J. Earl M. Flack	H. Josten C. Kennedy M. Lafond A. Jivanani	T. Lagerstrom M. Orosz C. Schneider H. Song	J. Toney R. Warren
Excused: (3)	E.R. Byron	K. Flowers	E. A. Peters	
Absent: (1)	G. Nourse			

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>.

MINUTES

The minutes from the fall 2009 meeting in Denver were approved with the addition of P. Barnhart to Members in attendance list.

WORKING GROUP & TASK FORCE REPORTS

The following working group reports were presented:

- PC37.20.8 Task Force - T. Burse and D. Groves – There has been no progress thus we cannot move forward. Ted will give a report next meeting.
- PC37.20.2 Standard for Metal-Clad Switchgear - M. Wactor – Draft 3 was reviewed and Draft 4 will be sent to WG for comments in June. The document will go out for ballot before next meeting.
- PC37.20.3 Standard for Metal-Enclosed Interrupter Switchgear – C. Ball – The document was reviewed through clause 6. A proposal was discussed to add other finishes besides paint, such as Galvanized G90, to Clause 7 and to increase the salt spray test from 200 hrs to 600 hrs as defined in ASTM 1332. Ted Burse moved and 2nd C. Ball, that a task force be formed to review coatings and corrosion requirements for enclosures. The task force consisting of T. Burse, A. Storm, C. Schneider, E. Byron, P. Barnhart and C. Ball will make recommendations that can be applied across all SA Standards. The Task force will report back at next meeting.
- PC37.20.4 Standard for Indoor AC Switches (1kV – 38kV) for Use in Metal-Enclosed Switchgear – C. Ball – A new draft will be sent out for review at the fall meeting. The document should go out for ballot after the fall meeting.
- C37.20.7, Corrigenda 1 Guide for Testing Medium-Voltage Metal-Enclosed Switchgear for Internal Arcing Faults - M. Wactor. – Corrigenda 1 is approved. Issues with existing C37.20.7 document were discussed. It has been decided to consider adding Motor Control and a few other equipment types to an Annex in the revised document. A PAR for C37.20.7 will be requested by this summer.
- PC37.121-1989 Unit Substations - J. Smith – Reviewed Draft 2 of document and will issue Draft 3 review comments at fall meeting.

OLD BUSINESS

- MV GIS Application Guide – P1663.1 (also referred to as PC37.122.2) Guide for the Application of Medium Voltage Gas-Insulated Substations 1kV to 52kV – T. Olsen – PC37.122.2 Draft 15 was reviewed in Jan/10. The next meeting is scheduled in a few weeks.
- IEC activities – T. Burse (Liaison D representative of the IEEE PES Switchgear Committee to SC 17C MT 14) —Next draft is up for vote soon. If you wish to review and comment send an email to Ted Burse and he will send you the information. Comments must be back to him by the end of May.
- ASC C37 – General update – T. Olsen - The NEMA has finally replaced the retired secretary. ASC C37 will be coming out with reaffirmation ballots on C37.51, C37.54, C37.55, C37.57, C37.58, C37.85 and a ballot on a revised C37.50 to reflect latest changes in C37.13/C37.17 will follow. New operating procedures will also be coming out.
- C37.81 Guide for Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies (requires action in 2009) – A. Morgan - Document was reaffirmed in January. SA needs to clear up some time slots before we can work on this.
- C37.82 Standard for Qualification of Switchgear Assemblies for Class 1E Applications in Nuclear Power Generating Stations (requires action in 2010) – A. Morgan – Document was reaffirmed in January.
- ADSCOM – It is critical that a Switchgear Committee Organization and Procedure Manual (O&P) be developed for approval by the Standards Board by December 2010 or we will not be able to develop Standards. – The draft is ready to issue to AUDCOM. T. Burse will be making a motion at ADSCOM meeting to go with what we have and give W. Long permission to make any changes requested by the governing bodies in order to push it through. We can go back yearly to put in revisions once approved, but if we do not get it approved by December 2010 we cannot write standards.

NEW BUSINESS

- C37.21 Control Switchboards requires action in 2010 - Motion was made by M. Wactor and 2nd T. Burse that this document goes out for reaffirmation. The motion was approved.
- Respond to a query received concerning C37.23 Metal-Enclosed Bus Table 5 Temperature Limits for ME Bus. – The proposed wording from A. Morgan was reviewed and modified. Motion by A. Storms and 2nd P. Barnhart to accept the appended text. The following is the amended response;

"An interpretation is not required. C37.23 clearly states in Table 5 the limits for total temperature and for temperature rise. Both limits apply. The limit of total temperature must be met, and, at the same time, the limit of temperature rise must be met.

The limit on temperature rise applies regardless of ambient temperature, and the limit of total temperature also applies regardless of ambient temperature. For example, if the ambient is 0 degrees C, the limit of temperature rise is 65 degrees C for bus conductor under b) tin- or silver-surfaced (or equivalent) bolted joints. Similarly, if the ambient is 60 degrees C, the limit of total temperature is 105 degree C (also for bus conductor under b) tin- or silver-surfaced (or equivalent) bolted joints), which would thereby impose a reduction in temperature rise limit to 45 degrees C due to the excess ambient.

In order to meet the standard both the maximum temperature rise and maximum total temperature must be met. Also there is a distinct difference between ratings and applications. The rating is not site-specific. For site-specific applications, refer to C37.20.2 Clauses 8, "Application Guide for MC Switchgear"; specifically clauses 8.1.1 "Ambient air temperature above 40 degrees C", 8.1.2 "Ambient air temperature below -30 degrees C" and 8.4 "Continuous current rating and overload capability".

This explanation was reviewed by the Switchgear Assemblies Subcommittee (responsible for IEEE Std. C37.23) and represents the view of the Subcommittee. "

- If you have not registered for the online Association Management System (AMS), please do so. You must be registered in this system to be added to the roster for the SA Subcommittee and any of the Working Groups.
- ADSCOM – It is critical that a Switchgear Committee Organization and Procedure Manual (O&P) be developed for approval by the Standards Board by December 2010 or we will not be able to develop Standards. Program and Process manual (P&P) will also be required for all working groups in the Switchgear Committee.
- Procedure for Meeting Rooms - Meeting arrangements must be made through the Subcommittee Chair, rather than directly with the Switchgear Committee secretary. Working Group chairs, advise the Subcommittee Chair concerning

your working group room requirements (preferred dates, number of sessions (one session = 1 hr 45 min), number of persons expected, and A/V needs) by July 5, 2010.

- Education, Recognition and Publication Subcommittee (EPR) – J. Nelson is looking for an editor to coordinate papers submitted for review to SA and LVSD. H. Song volunteered to participate. If anyone wishes to volunteer to review papers they can go onto the Manuscript Center and sign up to review papers.

FUTURE MEETINGS:

Fall 2010,	Las Vegas NV September 26-30
Spring 2011,	Orlando FL May 15-19
Fall 2011	Nashville, San Antonio or St Louis

The meeting adjourned at 5.05 PM.

Minutes submitted by: J. E. Smith, Secretary