

**SWITCHGEAR ASSEMBLIES SUBCOMMITTEE  
MINUTES OF THE FALL, 2002 MEETING**

**SAN LUIS RESORT  
GALVESTON, TX**

The meeting was called to order by Chair D. Lemmerman at 1:33 PM on May 1, 2002 with the introduction of the following members and guests:

|               |   |  |   |                                     |
|---------------|---|--|---|-------------------------------------|
| Members: (11) | C. Ball<br>T. A. Burse<br>D. J. Edwards | S. S. Gohil<br>D. J. Lemmerman<br>A. F. Morgan | G. R. Nourse<br>T. W. Olsen<br>E. A. Peters | R. J. Puckett<br>M. Wactor          |
| Guests: (11)  | A. Dixon<br>P. Dwyer **<br>K. Gettman   | A. Livshitz **<br>R. Kyle<br>F. Mayle          | D. Mazumdar **<br>I. Shteyh<br>S. Siedzik   | J. E. Smith **<br>S. P. Slattery ** |
| Excused: (6)  | J. J. Dravis<br>R. K. Iyer              | J. M. Jerabek<br>W. E. Laubach                 | P. J. Notarian                              | S. H. Telander                      |
| Absent: (4)   | E. R. Byron                             | W. C. McKay **                                 | G. O. Perkins **                            | G. Sakats                           |

\*\* See actions on membership changes, documented in the meetings.

The meeting was called to order at 1:38PM on October 2, 2002.

The minutes of the Spring, 2002 Switchgear Assemblies Subcommittee meeting in Newport, RI, were approved as distributed.

**ADSCOM Report**

ADSCOM Committee Report: Mr. Lemmerman reported that:

- S. Vogel presented improvements that IEEE-SA will be making in the standards process, including databases, development tools, and color coding of documents according to priority.
- B. Johnson, president of IEEE-SA, made remarks about the IEEE-SA process, and discussed the availability of dual logo documents (IEEE – IEC).
- Discussion occurred regarding support from IEEE-Piscataway relative to transfer of documents from NEMA. No comment or commitment was voiced by IEEE-SA representatives. The subcommittee discussed raising this issue at the main Switchgear Committee meeting on October 3. The consensus of the Switchgear Assemblies subcommittee is that a written commitment of support is needed from IEEE-SA.
- NEMA will transfer various C37 documents to IEEE for future action. Switchgear Assemblies subcommittee will be asked to accept responsibility for some of the transferred documents.
- Objection to the 10-day ballot period for recirculation ballots was raised. ADSCOM passed a motion to require a “default period” of 30 days, which can be shortened upon request of the WG chair with the agreement of the Switchgear Committee Standards Coordinator.

**WORKING GROUP REPORTS**

The following working group reports were presented:

- C37.20.1(Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear): C37.20.1 was approved by IEEE-SA and will be published about October 6. This WG can be disbanded.

- C37.20.7a (Guide for Application of Equipment Qualified as Medium-Voltage Metal-Enclosed Arc Resistant Switchgear): A preliminary draft was distributed, and assignments made for review of various clauses. Mr. Wactor will submit a PAR request to IEEE-SA.
- C37.21 (Control Switchboards): D9 will be submitted for formation of a ballot group in October. A motion 1A was previously approved at the Fall, 2000 meeting in Tucson.
- C37.23 (Standard for Metal-Enclosed Bus and Guide for Calculating Losses in Isolated Phase Bus): The WG met on October 1. The ballot for C37.23 also opened on October 1. Considerable discussion occurred regarding the reference in C37.23 to C37.24, and vice-versa. It was reviewed that the referenced in C37.23 (and predecessor documents) has been present since at least 1969, and probably longer. It was agreed that no action take place now, as we await ballot input.
- C37.24 (Guide for Evaluating the Effect of Solar Radiation on Outdoor Metal-Enclosed Switchgear): The ballot for D6 was affirmative, with two negatives. One negative was addressed, and changes made (add a paragraph unintentionally omitted from the draft) to address the negative. The second negative (from E. Peters), concerning the inclusion of C37.23 equipment in the C37.24 guide, was discussed. The WG feels that it should be rejected, and is waiting for further response from Mr. Peters. D7 will be prepared and submitted for recirculation ballot. A question was raised as to whether it is appropriate to submit C37.24 as a candidate for dual logo status, since no IEC document covers solar radiation.
- C37.100.1 (Common Clauses Working Group): Mr. Storms provided a report of the Common Clauses working group. The document will be balloted within about 2 months. There is an opportunity to provide input to MT34 concerning IEC 60694 (common clauses) at the meeting in Beijing later in October. The US will be submitting a "green paper" for items to be considered for inclusion. We now have a member of the UK delegation (L. Falkingham) who regularly attends IEEE Switchgear Committee meetings as a member of C37.100.1 WG and as a member of MT34. This gives us an added voice in "our choir" at MT34.

### **OLD BUSINESS**

- Application Guide for dealing with arcing faults: Refer to report of C37.20.7a above.
- IEC Activities (SC 17C MT 14): The most recent meeting occurred in Regensburg, Germany, in August. The next meeting will occur in Beijing in October:
  - IEC 60298: The effort to return "metal-clad" to the basic document was rejected. A renewed effort will be made at the upcoming meeting in Beijing later this month. Significant technical changes have been made in the document. Because of this, arguments will be presented in Beijing to keep this document from going to the FDIS stage due to the volume of technical changes. The present draft is completely different from past published documents. The creation of new classes of equipment makes the document much more difficult to understand.
  - IEC 40466: No activity.
  - IEC 60932: No activity.
  - IEC 61330: This will be approved for revision, and a CD has been submitted. The next step will be distribution of a CDV document.
  - IEC 61958: No activity.
  - Cycle times: MT14 reviewed cycle times and decreased most to 8 years.
- Switchgear Assemblies document status review: The document status will be updated to include the expected documents to be transferred from NEMA, shown as "awaiting transfer from NEMA". Mr. Dwyer also requested that a system be created to keep track of topics for future revisions of various documents (e.g., the topics under C37.20.3 / C37.59 discussed later in meeting).

## **NEW BUSINESS**

- Transfer of C37 documents from NEMA: The documents expected to be transferred in the near future include the following:
  - C37.06 (joint with HVCB – HVCB should be lead) HV circuit breaker ratings
  - C37.06.1 (joint with HVCB – HVCB should be lead) HV circuit breakers rated for fast rate of rise of TRV
  - C37.12 (joint with HVCB – HVCB should be lead) specifications for HV circuit breakers
  - C37.22 (joint with HVS – SA should be lead) preferred ratings for switches used in metal-enclosed switchgear
  - C37.121 unit substations

Reservations on acceptance by Switchgear Assemblies of joint responsibility for C37.06.1 were expressed. It is noted that Switchgear Assemblies is interested in obtaining responsibility for C37.51, C37.55, and C37.57 should NEMA wish to transfer these documents. It was also questioned whether IEEE might require balloting of documents “as received” prior to acceptance. It was agreed that this would hardly be logical. A separate issue was raised that with ASC C37 no longer involved, the responsibility for number assignments will become important. This will have to be controlled by the Switchgear Committee Standards Coordinator.

- C37.20.7: It was reported that a new working group is being formed in Canada to update and revise EEMAC G14-1. This is very disappointing as significant effort was expended in the development of C37.20.7 to bring in Canadian input so that C37.20.7 could be accepted in Canada. Mr. Wactor will monitor this, and if appropriate, will prepare a PAR for revision of C37.20.7 instead of for a supplement, C37.20.7a.
- C37.20.3 issue raised by C37.59: Mr. Nourse raised an issue in his C37.59 ballot regarding interlocking when a metal-enclosed interrupter switch is converted to include fuses. He is of the opinion that interlocking is needed to prevent access to fuses that may be backfed from other sources. Since this topic would require changes to the equipment beyond the construction required for new equipment, this is deemed to be a topic for the “mother” standard, C37.20.3 in this case. Mr. Nourse recounted incidents involving failure to test for the presence of voltage on medium voltage equipment. Considerable discussion occurred about whether such interlocking is possible. NFPA 70E and OSHA requirements for checking for the presence of voltage, and for use of safety grounds, were also discussed. This topic will be retained and referred to the WG for the next revision of C37.20.3.
- Switchgear Assemblies subcommittee 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. Expected documents transferred from NEMA will be added.
- Membership review: The subcommittee voted to drop Messrs. McKay and Perkins from the list of members, and add them to the guest list to continue to receive correspondence. The chair will send a letter to each explaining that this action was taken for reasons of non-attendance, and offering to reconsider should their conditions affecting participation change.

Separately, the subcommittee voted to add Messrs. Dwyer, Livshitz, Mazumdar, Slattery, and Smith to the membership of the subcommittee.

- Working Group chairs are requested to provide electronic copies of reports to T. Olsen by October 4.
- Meeting Rooms- Room requests and equipment needs (overhead projectors, etc.) should be forwarded to Mr. Burse by February 1.

- Next Meetings:

May 4-8, 2003  
October

Tradewinds Sirata Beach Resort, St. Pete Beach, FL  
Portland, OR

The meeting adjourned at 5:36 PM.

Minutes submitted by:

T. W. Olsen  
Secretary