

**MINUTES OF MEETING  
BUSHING SUBCOMMITTEE  
OF THE  
IEEE/PES TRANSFORMER COMMITTEE  
Oklahoma City, Oklahoma  
October 23, 2002**

**A. Introduction and Membership**

Subcommittee Chairman, Fred Elliott opened the meeting at 3:00 PM and welcomed the members and guests. Introductions were made and an attendance lists was circulated. There were 44 people in attendance with 19 members and 25 guests present. One guest requested membership.

**B. Chairman's Remarks**

Fred explained the procedure for balloting documents within IEEE: In order to vote you must become a member of a ballot pool. This requires that you first must request to be made a member of the balloting pool. Once you are a member of the balloting pool you will receive invitations to ballot via email. If you do not want to ballot the particular document, do not respond to the email. If you want to ballot the particular document follow the instructions in the email. Once you respond you must vote or be removed from ballot pool.

In order to become a member of a ballot pool you must be a member of the Standard Association. (And likely a member of IEEE)

Fred announced that next Transformers Committee meeting would be held in Raleigh, NC March 16-20, 2003.

Fred confirmed that Russ Nordman, a long time Bushing Subcommittee, member had changed employers and would not be able to continue to attend our meetings. Fred read a short farewell note from Russ.

**C. Approval of Minutes of April 16<sup>th</sup>, 2002 Meeting in Vancouver BC**

The minutes were approved as written.

**D. Working Group / Task Force Reports**

**D1. WG on General Requirements and Test Procedure For Power Apparatus Bushings (C57.19.00)**

**1. Introduction and Membership**

The WG Chair opened the meeting at 1:55 PM and welcomed the members and guests. Introductions were made and an attendance list was circulated. There were 29 people in attendance with 13 members and 16 guests present.

**2. Meeting Minutes**

The minutes from the last meeting in Vancouver BC were approved.

**3. Review the status of the ballot of PC57.19.00/D6.**

As of Friday, October 18<sup>th</sup> there were 23 ballots received out of 89 members of the ballot pool. With 19 approved without comment, 3 approved with editorial comments and 1 abstention. The ballots close November 13, 2002.

The WG Chair reported that the PAR for this document expires at the end of the year, making it impossible to complete the work before the PAR expires. A second PAR extension has been requested. It is planned to complete all work on this document before the Spring 2003 meeting in Raleigh. So there will be no additional WG meetings scheduled.

The WG Chair requested that during the ballot process he might call on individual WG members for their assistance in resolving ballot comments.

The WG Chair thanked all WG members and Guests for their contribution, over the years, to the revision of this most important document.

One item that came up was regarding the SA ballot process. It appears that a number of WG members, who are SA members, did not receive invitations to ballot this document. This even though they had requested SA to be invited to ballot all C57 documents. It was agreed to bring this issue up during the Bushing Subcommittee meeting on October 23<sup>rd</sup>.

An additional comment by the WG Chair regarding the entire process to bring a document to ballot: The entire process was too long and the Chair received little to no assistance from IEEE in the process. It appears to the Chair that IEEE is forgetting that we volunteer our time to IEEE and that we all have full time employment to consider. A response from IEEE such "we are too busy" or "we get too many emails" are not acceptable responses to people who are volunteering their time and effort to IEEE.

4. With the additional time available during this session it was agreed to discuss forming a Study Group to oversee the revision of C57.19.100, Bushing Application Guide. During the past several years a number of items and issues had come up that were suggested for the Guide. In addition, a survey was taken earlier that indicated a number of areas in the Guide that needed revision. In order to get a jump-start before forming a WG, which requires a PAR, it is suggested to form a Study Group? The people present voted on this suggestion and the vast majority voted in favor of forming a SG. The results of this vote will be presented to the Bushing Subcommittee members. After the meeting Tommy Spitzer with Oncor volunteered to chair the SG.

#### 5. New Business

There was no new business

#### 6. Adjournment

The meeting was adjourned at 2:22 PM.

### **D2. Task Force on Draw-Lead Bushings**

Fred Elliott chaired the TF on Draw-Lead Bushings. During the meeting the questions was raised regarding the future of the group: Should the TF continue or has it exhausted its efforts to recommend any positive results to the Subcommittee. After some discussion and a show of hands the majority of the people in attendance voted to disband the TF.

Discussions on this subject continued in the Subcommittee. There were a couple of people that felt that some of the work of the TF had produced some information that could be used in C57.19.100, Bushing Application Guide and possibly in other documents. It was agreed to tabulate the efforts of the TF over the past seven years and present those results to the Subcommittee for review. Keith Ellis or Fred Elliott will contact Russ Nordman to gather this information.

### **E. Report from Technical Advisor to IEC 36 A**

As Russ Nordman filled this function the Subcommittee is looking for a volunteer to become the Technical Advisor to IEC 36A. Please contact Fred Elliott if you are interested in supporting this effort.

### **F. Old Business**

Fred Elliott needs to produce a possible scope for looking into developing a standard for bulk type bushings up to 34.5 kV and then put this scope into the hands of the individuals who volunteered to work on this effort.

### **F1. Reaffirmation/Revision of C57.19.100, Bushing Application Guide**

Based on the discussions during the PC57.19.00 meeting as reported above it was agreed to form a Study Group to start work on the revision of this document. Tommy Spitzer with Oncor volunteered to head the Study Group. Keith Ellis and Fred Elliott are to provide Tommy with supporting information on items that needed to be added or revised in this document.

## **F2. C57.19.03, DC Bushing Standard**

During the reaffirmation ballot a number of comments and one negative vote was received. After review of the comments it was clear that certain clause references of the original document are in error. It is planned to address these comments by confirming that the errors will be corrected and that other comments will be addressed in the next revision.

## **G. New Business**

The PAR extension for PC57.19.00 has been submitted and it looks like it will be granted.

### **G1. C57.19.01, 2000: Performance Characteristics and Dimensions for Outdoor Apparatus Bushings:**

Fred Elliott reported that there are a number of people that have expressed concern with the major changes made to this document in 2000 and that reaffirmation of this document in 2005 would most likely be difficult. Discussion on this issue resulted in agreement to take a couple of actions:

1. Publish a paper explaining the efforts that went into developing this standard. The paper will be considered for publication at the next Doble Conference.
2. Conduct a tutorial at a future Transformers Committee meeting to educate everyone on the benefits of this standard.
3. Form a study group to look into improving this document for the next revision.

## **H. Adjournment**

The meeting was adjourned at 4:11 PM

Minutes Submitted By,

Keith Ellis, Acting Secretary, Bushing Subcommittee

Attachments - Attendance sheets

Copies:

Members and Guests (w/Attendance List)

Secretary transformer committee

Susan McNelly for Website