

Annex F Instrument Transformers Subcommittee - Ross McTaggart

F.1 Introductions

The attendees introduced themselves and reported affiliations.

F.2 Quorum

18 of 24 members were present - quorum attained

F.3 Approval of minutes – Savannah, Georgia meeting

Motion by David Wallace & seconded by Vladimir Khalin

F.4 Approval of Agenda

F.5 Working Group Reports

F.5.1 Working Group on Current Transformers with mA range (WG C57.13.7) - Chair: Henry Alton, Vice-Chair: Adnan Rashid

Introductions

Acceptance of the Agenda

9 members and 8 guests attended this meeting

Mr. Rashid announced to the group that he would be conducting the meeting as the chair would not be available to participate in the meeting. Quorum for the meeting was met with nine out of thirteen members in attendance. This needs to be confirmed by Mr. Alton.

An agenda was forwarded by Henry Alton a few days prior to the meeting and this was presented to the group for review. It was agreed to add New Business to the agenda. The agenda was accepted with the addition.

Old Business (House Keeping)

The minutes of the Savannah meeting were accepted by the group.

Draft Review

A new draft of C57.13.7 was presented which included updates provided by Dr. Eddy So. Dr. So described the updates. Vladimir Khalin suggested that reference to the standard ANSI/NCSL Z540-1-1994 should be updated to the more recent ANSI/NCSL Z540-3-2006. This was agreed to by the group.

Action: Update references to ANSI/NCSL Z540-1-1994 to ANSI/NCSL Z540-3-2006

It was pointed out that figure 2 requires correction. The scale along the x-axis should be: -20, -10, 0, 10, 20 rather than the current: -10, -5, 0, 5, 10.

Action: Update figure 2 x-axis scale to -20, -10, 0, 10, 20

A suggestion was made that section 6.4 should be moved to an informative annex. This suggestion was not accepted by the group.

New Business

Vladimir Khalin suggested that the Burden tables 3 & 4, should be reviewed. He stated that that power factor 0.9 should be power factor 1.0 or consideration should also be given to capacitive power factor. He also suggested that there should be only one set of burdens for all CT's up to 250ma rather than the two sets identified. It was noted that the burden tables have been discussed in the past and the workgroup has previously agreed on this part of the document. It was suggested that Vladimir should table his suggestions as a formal proposal for any future consideration.

F.5.2 TF on Station Service Voltage Transformers - D Wallace

A total of 25 people were in attendance with 16 out of 20 members present. A quorum was met.

The minutes from the Savannah meeting were reviewed. John Herron made a motion for approval and it was seconded by Vladimir Khalin. The minutes were approved.

A request had been made at the Savannah meeting to review the draft of C57.13.8 and return comments on the supplied spreadsheet. Several of the committee members provided comments on various sections of the standard. These comments were compiled into on spreadsheet and distributed to the committee for review.

During the meeting, 29 of the 102 comments were reviewed and either accepted as presented, accepted with further comment or rejected. The comments that were accepted will be inserted into the current draft of the standard. The ones that require further comment will be modified and reviewed at the next meeting.

It was decided that the remaining 73 comments will be sent out to the committee to review and either be accepted, accepted with comment or reject. Before the next meeting, the updated comments will be compiled and prepared for review at the next meeting in San Antonio.

F.5.3 Working Group for Revision of IEEE C57.13 Instrument Transformers - R. McTaggart

F5.3.1 Introductions

F5.3.2 Quorum

19 members + 12 Guests – quorum attained

F5.3.3 Approval of minutes from Savannah meeting (motion by David Wallace -seconded by Vladimir Khalin)

F5.3.4 Discussion

A review of the schedule and progress was presented.

A slide was presented detailing the membership and participation in this working group. At this time we have 14 producers, 5 users, 5 consultants/others and 2 corresponding members. It was mentioned that because of recent changes corresponding members may be handled differently in the future.

The status of the revision was discussed briefly with emphasis on the June meeting of the working group in Charlotte, the circulation of draft 5 and it was mentioned that a PAR extension had been requested. The attendance of the Charlotte meeting was mentioned as well as the larger items that were settled at this meeting.

The next steps for moving to a sponsor ballot were discussed. Some discussion took place regarding if the WG should proceed with a vote at this meeting with the attendees or if this should be done by an email survey to include those not in attendance. Pierre Riffon motioned to vote in the meeting and Vladimir Khalin seconded this motion. It was decided that the working group present should vote to determine if the attendees should vote to move towards a sponsor ballot or if a survey should be conducted. Prior to voting the attendees were polled to determine the number of working group members and as a couple members had arrived after the initial check for quorum the number of working group attendees was now 18. A total of 17 of the 18 members present voted to proceed towards moving to a sponsor ballot.

Two items of new business were discussed. Eddy So had provided two comments that may be handled in the ballot resolution process. The first item related to uncertainty limits and was not controversial. It was mentioned that one reference had to be updated. The second comment from Eddy So was presented by Ross McTaggart and concerned if a ground shield check should be done similar to C57.13.5. Some conversation took place regarding this comment from Eddy So without a strong consensus of how to best proceed. A resolution committee will need to review and resolve this comment.

F5.3.5 Adjournment

No other new business was presented and a motion to adjourn was made by David Wallace and seconded by Chris Steineman

F.5.4 WG PD in Bushings & PTs/CTs PC57.160 - Thang Hochanh

A quorum was not reached in this meeting.

Discussion focused on bushing test procedures. Calibration techniques and the definition of background noise were discussed extensively. A discussion took place regarding how to best perform testing in high background noise environments. Finally the chair displayed several partial discharge patterns and encouraged comments from the assembled group. Multiple individuals indicated that they would provide more patterns for review and possible inclusion in this document.

F.6 New Business

Ross McTaggart went over the next steps for C57.13 draft 5 explaining the procedures to be taken. Pierre Riffon motioned to vote within the subcommittee. Rudy Ogajanov seconded this motion. A vote was taken with 18 members voting in favor of proceeding to a sponsor ballot.

The status of the Standards that this SC is responsible for was reviewed. None require a WG for revision immediately. However, Ross McTaggart expressed an interest in starting to review these standards in future meetings so that the scale of each revision could be gauged and areas of concern listed.

Randy Mullikin asked what to do with C57.13.6 once the new version of C57.13 is published, as the contents of C57.13.6 are included within the draft. It was not determined if C57.13.6 would be allowed to simply expire or if it needed to be withdrawn. Vladimir Khalin indicated that work to revise C57.13.2 would need to begin once the main standard is in effect.

Pierre Riffon indicated that changes would need to be made to the internal arc test procedures in C57.13.5 for gas filled instrument transformers.

F.7 ITSC Adjournment