

Unapproved Minutes
IEEE/PES Transformers Committee
Standards Subcommittee Meeting
October 24, 2012 Milwaukee, WI

1. Opening Remarks

The Chair, William Bartley opened the meeting and summarized the recent activities of the Transformer Standards activity for the six-month period of April 1, 2012 to October 1, 2012. In the last six months, 1 new Standard, and 1 Revision were approved by Standards Board /REVCOM. In addition, we currently have 6 Standards on the agenda for December Standards Board meeting. In this same period, Standards Board /NESCOM approved 5 PARs for new standards, 3 PARs for Revisions, and 2 PAR extensions. We also have 2 PARs on the December agenda. The Transformer Committee is responsible for almost 100 standards, plus over 55 PARs, projects for new standards and revisions. For the full Standards Report see the TC website via the following link:

http://www.transformerscommittee.org/meetings/F2012_Milwaukee/Minutes/F12-StandardsReport.pdf

An overview of the upcoming new 10 year maintenance cycle change presented at the Standards Luncheon was given. The change will extend the revision (reaffirmation) cycle from 5 years to 10 years after the last date of approval or maintenance action. The Chair stressed there would be no extensions. It is suggested to review the full presentation at:

<http://www.transformerscommittee.org/info/F11/F11-IEEE-StndsPolicyChanges.pdf>

2. Meeting Attendance

The Standards Subcommittee met on Wednesday, October 24, 2012, at 4:30 PM. A role call showed 30 members in attendance constituting a quorum at the start of the meeting. Overall there were 106 attendees, with 30 members, with 76 guests, including 6 that requested membership upon tabulation of the circulated rosters.

3. Approval of previous meeting minutes

The Chair asked if there were any comments or corrections to the previous meeting minutes, and motioned for approval. There were no comments to the meeting minutes of the Spring 2012 meeting in Nashville, Tennessee; and the minutes were approved.

4. Working group reports.

- **Cont. Revision of C57.12.00 – Steve Snyder** reported the following:

The purpose of this WG is to compile all the work being done in various TF/WG/SC's for inclusion in the continuous revision of C57.12.00 in a consistent manner. This WG coordinates efforts with the companion Standard C57.12.90 so that they publish together. The goal is to issue new Standards every 2 to 3 years.

Standard C57.12.00 was published September 2010. A new PAR was requested in April 2011 and approved June 16, 2011 to cover the ongoing work for the continuous revisions. This PAR is good through December 31, 2015.

The Performance Characteristics Task Force working on stabilizing windings has finished their work, which will result in a small revision to the document. There are three (3) other PCS issues underway at present, and those topics should be fully addressed by the middle of 2013. There were a few negative ballot comments from the prior ballot pertaining to Dielectric Tests, Insulation Life, and Insulating Fluids. I am aware of progress occurring on the dielectric test tables, but I am unaware of what's occurred in the other Subcommittees. I think those items should be completed or reviewed before we move forward with a new revision.

At this meeting (Milwaukee), I was informed of a possible equation error in standard C57.12.00. This issue will be investigated by me and a few ballot resolution "volunteers" to determine appropriate action, if any. Additionally, I learned of some discrepancies in the neutral BIL, column 13 of Table 5. The Dielectric Tests Subcommittee is discussing the necessary changes, which they'll forward to me when complete. They have requested a Corrigendum to obtain more rapid implementation.

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In mid-2013 I will solicit input from all Subcommittees to determine if they have changes ready for inclusion in the next revision cycle.

Respectfully submitted, by Steven L. Snyder, WG Chair, on March 14, 2012

- **Cont. Revision of C57.12.90-2006 – S. Antosz** reported the status of as:

This is essentially a working group of one person. There was no meeting held. The purpose of the WG is to keep track of the work being done in various TF / WG / SC for inclusion in the continuous revision of C57.12.90 in a consistent manner.

Summary

The new PAR was approved on June 15, 2011. It is valid until Dec 31, 2015. There has not been much activity since March 2012.

Future Revisions

Changes *already approved* for the next revision:

- New subclause 10.2.5 Connection of neutral terminal during switching impulse tests by Pierre Riffon's WG Revision to Impulse Test in Dielectric Test Subcommittee. Submitted on 4/27/09.
- Revisions to Clause 12 Short-circuit tests and new Annex on Connections diagrams for testing three-phase transformer using alternate single-phase source by Marcel Fortin's Task Force in the Performance Characteristics Subcommittee. Submitted in Fall 2009.
- Revision to subclause 10.3.2.4 Tap connections during lightning impulse test by Pierre Riffon's WG Revision to Impulse Test in Dielectric Test Subcommittee. Submitted on 10/28/10.
- Revisions to subclauses 10.2.1, 10.3 and 10.3.3 which increases the number of full wave impulse waves applied from one to three. This is the same as IEC
- Revisions to Clauses 6 & 7 Polarity & Phase-relation and Ratio tests from Mark Perkins' PCS WG for Revision of C57.12.90. Final survey circulated in Sept 2011.

Pending work

- Revision to Clause 11 Temperature-rise tests by Paulette Payne Powell's WG in the Insulation Life Subcommittee.
- Revision to Clause 13 Audible Sound by Ramsis Girgis' TF in the Performance Characteristics Subcommittee.
- Other possible revisions to subclauses 10.2 to 10.4 from Pierre Riffon's WG for revision of impulse tests.
- Other possible revisions to subclauses 10.5 to 10.10 from Bertrand Poulin's WG for revision of low frequency tests. Maybe some change due to Class II PD testing on 69 kV, xfmr's >15 MVA.

Respectfully submitted by Stephen Antosz, WG Chair, on December 2, 2012

- **WG on Revision of IEEE PC57.152 (old 62) – Jane Verner –**

The Working Group met on October 23, 2012 and began with introductions of all. A total of 105 people with 68 guests were in attendance, including 37 members. We had a quorum.

The Nashville spring 2012 meeting minutes were approved with motions by Dave Harris and John Herron and approved by the WG.

Since the Nashville meeting the working group reviewed Draft 5.0. Comments were incorporated into Draft 5.1. The survey of the working group gave an approval to ballot the document. IEEE MEC and Legal review of Draft were completed and Draft 5.2 was balloted formally.

The ballot closed on September 8. The ballot pool had 151 people with 127 people casting ballots. More than 90 percent approved the document however 285 comments were received with 11 voters casting

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disapproval comments. The ballot resolution committee has been working thru the comments and revising the draft accordingly.

A PowerPoint with some of the comments that were received multiple time or needed further input was shown and discussed.

The plan is to recirculate Draft 6.0 for ballot in early November. Voters for the recirculation were reminded that comments can only be made on the changes to the document. A vote for PC57.152 is a vote to replace IEEE 62 which is more than 15 years old.

Our PAR extension to 2013 has been requested and is on the IEEE Standards Board agenda for their December meeting. A special thank you to the volunteers on the ballot resolution

- Kipp Yule
- Loren Wagenaar
- Mario Locarno
- David Murray
- Wally Binder
- Peter Balma
- Dave Harris
- Gary Hoffman
- Dave Wallach

The meeting was adjourned at 8:45 AM.

Respectively submitted by Jane Verner – WG Chair

• **TASK FORCE on Recommendations to the IEEE Transformer Committee (TC) on Recommended Changes, Deletions, and Insertions Related to Normalizing the References of Insulating Liquids Throughout the IEEE TC Standard Series – P. McShane**

The taskforce met for the first time. The officers were determined through volunteers from the gathered group. Patrick McShane as Chair, David Harris as Vice-Chair, Stephen Shull as Secretary, Sue McNelly as Insulating Fluids SC Coordinator, Jerry Murphy as Standards SC Coordinator, Dave Hanson as Chemical & Material Technical Consultant, Dave Harris as Power and Distribution Transformer Technical Consultant, and Nick Perjanik as Liaison of TF to ASTM. Patrick McShane presented to the group the purpose of the paper. Patrick stated in a general discussion that the goal of the white paper was to provide guidance from which to form some consistency in the terms for fluids and their application in the transformer standards. Bill Bartley, as Standards Subcommittee Chair, added that this document would be used as a recommendation to Transformer's Committee Administrative Subcommittee to help them formula a policy on the use of these terms in standards.

Patrick went on to explain the issues with examples of the mixing and matching of various terms for fluids in the Transformer Standards. It was pointed out that the cooling class used the "O" from oil in the abbreviations. Patrick guided the group to understand that this was not in the scope of the white paper and these would not be address. The discussion led to Patrick asking if David Harris could generate a note to this effect which would be included in the document. David agreed to draft this for submission to the group.

The group reviewed and discussed the first draft of the white paper and its key annexes. Several attendees offered to be review leaders for the parts of the document. The annexes were discussed. Annex C consisted of a spreadsheet of standards to be reviewed. Various volunteers were added to this to review each standard for possible changes that would provide consistency.

Patrick stated that Steve would update the documents and post them on the web site as soon as possible for comments. All attendees were encouraged to recruit additional individuals to review the standards which currently do not have a reviewer assigned.

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Patrick reminded everyone that, as has always been the policy, to be a TF member, the individual must be a contributor to the work. One of the most critical activities is to be a standard reviewer. Patrick emphasized that others must be solicited to get this work done.

With this the meeting was called to adjournment.

Respectfully submitted by Steve Shull – TF Secretary

5. Old Business

- None

6. New Business

- None

7. Adjournment

The motion to adjourn by Chair made and hearing no objections; the meeting adjourned around 5:05PM.

Respectfully submitted by Jerry R. Murphy, Secretary Standards SC

Not Approved