

Annex L Standards Subcommittee – Unapproved Minutes

**October 26, 2016
Vancouver, BC
Canada**

**Chair: Jerry Murphy
Vice Chair: Kipp Yule
Secretary: Daniel Sauer
Standards Coordinator: Jim Graham**

The Chair, Jerry Murphy opened the meeting calling a show of members to establish quorum which was met.

L.1 Meeting Attendance

The Standards Subcommittee met on Wednesday, October 26, 2016, at 4:30 PM in the Junior Ballroom CD. A show of hands indicated only 17 of 35 members in attendance falling short of quorum at the starting time of the meeting. Quorum was achieved later with arrival of additional members. Overall the attendance roll showed there were 89 attendees, 22 members, 64 guests, including 13 that requested membership. Upon tabulation of the circulated rosters they will be reviewed for eligibility. Steve Shull moved to approve the fall 2015 minutes with second by Steve Antosz; motion was carried with unanimous acclamation approving. Jerry then requested a review of the Agenda which was updated to on section 5.3; motion was made by Steve Shull and seconded by Steve Snyder which was carried unanimously.

L.2 Chair's Remarks

Jerry welcomed the attendees to the final sub-committee meeting of the day and reviewed our process regarding membership requests. The chair further stated that the roster would be reviewed for further updates based on attendance at this meeting.

L.3 Standards Coordinator's Report – Jim Graham

Jim's report is on file.

L.4 <http://www.transformerscommittee.org/meetings/F2016-Vancouver/Minutes/F16-StandardsReport.pdf>

L.5 Working group reports

L.5.1 Continuous Revision of C57.12.00 – Steve Snyder

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 current standard was approved by the IEEE-SA Standards Board on December 5, 2015, with an official publication date of May 12, 2016. The standard is good for 10 years, but is under continuous revision and will be next balloted when sufficient new material is available.

Respectfully submitted by Steven L. Snyder, WG Chair, on October 26, 2016

L.5.2 Continuous Revision of C57.12.90 – Steve Antosz

This is a working group by committee of task forces, for continuous revision of C57.12.90. The purpose of the WG is to keep track of the work being done in various TF/WG/SC's for inclusion in the continuous revision of C57.12.90 in a consistent manner.

Summary

The new Standard C57.12.90-2015 was approved by the Standards Board on December 15, 2015. It was published on March 11, 2016 as IEEE Std C57.12.90-2015.

Status

Since this is a continuous revision document, there continues to be ongoing work in the various Task Forces. No new material has yet been submitted for the next revision.

Shortly after the document was published in March 2016, it came to Steve's attention that there was one error and one omission in the document.

- There is an error in Equation (2) in subclause 8.3 Waveform correction of no-load losses, where the exponent "2" was lost during editing. It needs to be added back.
- There is a sentence in 10.8 Induced Tests for Class II Power Xfmrs, that refers to this test being applied to terminals 115 kV and above. Since Class II now extends down to 69 kV, this sentence needs to be revised, changing the 115 to 69.

It was decided that these should be corrected immediately, so a corrigendum would need to be done. Steve took out a PAR and it was approved. With Peter Balma's help, the Working Group got the Corrigendum done and had a few electronic meetings with the Working Group members and it was approved to go to ballot. With approval of the Standards Subcommittee in Vancouver, I will launch the ballot shortly after this Vancouver meeting.

At the Spring 2016 meeting, Steve requested the three Subcommittee Chairs from Dielectric Test, Performance Characteristics, and Insulation Life to rename their 12.90 continuous revision Working Groups to Task Forces, since calling them a WG is incorrect. A WG needs a PAR and those groups do not have a PAR. The PAR exists (will exist) in the Standards Subcommittee only. Therefore, they are really Task Forces.

Steve plans to take out a new PAR for future revision to the document, and will do so after the Corrigendum finishes.

L.5.3 Corrigenda for C57.12.70 – Steve Shull

Steve Shull called the meeting to order and welcomed everyone to the working group meeting for the Corrigenda of C57.12.70. The purpose of the Corrigenda was to review Annex A and correct any errors that were found in the document. A quorum was established by hand count using a members list on the screen. Steve asked for patent claims and none were made.

Steve presented the agenda. A motion was made by Jerry Murphy and seconded by Lee Mathews to accept the agenda and the WG approved it by unanimous consent. Steve noted that the minutes of the last meeting were posted and entertained a request for a motion for approval of these. Jerry Murphy made a motion to approve these minutes and it was seconded by Jason Varnell. The WG approved it by unanimous consent.

Jason Varnell made a presentation to the group for the Task Force who reviewed the document. This Task Force consisted of himself, Charles Sweetzer, and Steve Shull. This presentation will be posted on the website.

This generated some discussion that resulted in a couple of suggestions. These were that the winding diagrams should be first on the left so that a left to right flow would allow for a better understanding of the phasor development. It was also suggested that some of the phasor diagrams be reordered to help in understanding the phasor development that were used in later drawings. As well, to make the arrows of the phasors be always at the tip away from the common point on wye connected diagrams and so as to provide clarity in the clock diagrams.

This resulted in a motion by Jerry Murphy to have the task force create a new draft of the annex which would incorporate the discussed suggested changes. This was seconded by Jason Varnell and was passed unanimously.

A request came from Blake Cook to join the Task Force. Steve Shull welcomed him to the group.

The next meeting will be held in the Spring 2017.

Respectfully submitted by Steve Shull, WG Chair, on October 26, 2016.

L.5.4 TASK FORCE for Comparison of IEEE & IEC Standards for Cross Reference

The task force meeting was held at 4.45pm on October 25, 2016. 4 of 5 members were present, so a quorum was achieved, 4 guests also attended, for a total attendance of 8.

The working group unanimously approved the Vancouver Meeting Agenda. A motion was raised by Hemchandra Shertukde to approve the minutes of the San Antonio, Spring 2015 meeting, Bill Griesacker seconded the motion which was carried unanimously.

A motion was then raised by Hemchandra Shertukde to approve the minutes of the Memphis, Fall 2015 meeting, Richard Marek seconded the motion which was carried unanimously.

This was followed by two presentations on comparison of IEEE and IEC standards. The first presentation was a comparison of the bushing standards C57.19.00 (2004), C57.19.01 (2001), and IEC 60137 (2008) prepared by John Graham chair of the Busing sub-committee (SC36A) and presented by the chair.

The second presentation was prepared by Tom Golner and presented by Rick Marek covering important differences between IEEE and IEC standards for high temperature insulation C57.154 and IEC 60076-14.

The task force meeting was adjourned at 5.50 pm.

Respectfully submitted by Vinay Mehrotra on November 10, 2016

L.5.5 TASK FORCE Report: Unwritten Rules & Procedures for working on and Revising C57.12.00 & C57.12.90

Steve Antosz presented his report on the procedures and rules for the compilation and editing of our two main standards: C57.12.00 & C57.12.90. Based on these recommendations, the groups that work on individual portions of these standards have been converted to Task Forces. The individual groups working directly on the material do not have PARs therefore they cannot be Working Groups. The Working Groups addressing these standards work out of this Sub-Committee and have membership determined by the chairs of the individual Task Forces that contribute to the material in these standards.

L.5.6 Working Group Report: Corrigenda for IEEE C57.163 – 2015

The Ballot of the corrigenda for IEEE PC57.163 – 2015 Guide on “Establishing Power Transformer Capability while under Geomagnetic Disturbances” closed at midnight October 14. It received 96 % response rate and 100 % approval rate. It dealt with a clarification made in the caption of Figure 13 of the Guide where the Figure showed Tie plates hot spot temperature rise measured at the top of the tie plates

while the corresponding Figure in the referenced Paper showed those at the middle of the plates. Three minor editorial comments were received and responses were entered. The project is on the agenda for the December 6 RevCom meeting.

L.6 Old Business

- The task force for C57.12.80 working on the definition for a distribution transformer (see Spring of 2016 minutes) has had their scope expanded by a motion to a full revision of this standard. This was moved by Jim Graham and seconded by Hemchandra Shertukde. The motion carried with one objection. Clair Claiborne volunteered as chair, with Jim volunteering as vice-chair.

L.7 New Business

- Steve Antosz reported that a Corrigenda of C57.12.90 is complete and has been sent to ballot to correct the error in the core loss correction formula and the omission in the induced test clause for class 2 power transformers which was discovered after the document was published.

The next meeting will be held spring 2017 in New Orleans, LA.

L.8 Adjournment

Steve Antosz moved to adjourn which was seconded by Susan McNelly, there were no objections and the meeting was adjourned by the Chair.

Respectfully submitted by Daniel M Sauer, Standards SC Secretary