

## **Annex K Power Transformers Subcommittee**

**Date March 26, 2014**

**Savanah Georgia**

**Chair: Joe Watson**

**Vice Chair: Bill Griesacker**

**Secretary: Kipp Yule**

### **K.1 Meeting Attendance**

The Power Subcommittee met on Wednesday, March 26, 2014, at 1:30 PM. A role call showed 57 of 76 members in attendance achieving quorum at the meeting, without the 5 corresponding members. Overall, there were 173 attendees, 57 members, 116 guests, including 20 that requested membership upon tabulation of the circulated rosters.

### **K.2 Approval of previous meeting minutes, and meeting agenda**

The Chair noted the agenda had some additional items as displayed, and the updated agenda, Attachment K.2 was approved following a motion by Craig Colopy, with a second by Dieter Dohnal.

The Chair explained the corrections / clarifications to the previous meeting minutes of the Fall 2013 meeting in St. Louis, Missouri, adding a brief statement to the Fall '13 minutes in the last paragraph of Section 7.6.3 (New Business), that stating we discussed adopting IEC 60214 as a joint document to cover both C57.131 and IEC 60214, and the consensus was to wait until the latest revision of IEC 60214 is completed and to then review the document, and vote on the question.

There will be a new Task Force lead by Craig Colopy to review the IEC 60214 parts 1 and 2, and C57.131 once issued, and create a recommendation as to align, or move towards becoming a joint standard.

The motion to approve the corrected meeting minutes; Wally Binder moved for approval and Axle Kramer seconded, then the minutes were approved by unanimous vote; provided the corrections were incorporated as explained.

The corrected Fall 2103 Power Subcommittee meeting minutes have been submitted and posted.

### **K.3 Chair's Remarks**

At the Administrative SC meeting it was stressed the importance of recording discussions and maintaining the attendance records in the AM System for all WG and TF meetings. The Chair offered support to anyone that is working in the attendance module of the AM System. This is important to track membership attendance and adjust roster role to better achieve quorum requirements.

Regarding Introductions, this is best when time permits, however it not mandatory provided name and affiliation is stated when speaking.

Also, The Chairs reminded the group that the duty of the Chair is to act as the meeting facilitator, and to remain impartial and not steer the meeting. Roles should be considered for adjustment to

allow the technical experts to contribute, and not necessarily be restricted by serving in an officer role. The Chair indicated openness to adjusting roles when appropriate.

#### **K.4 Working group reports**

##### **K.4.1 Revision of C57.93 IEEE Guide for Installation and Maintenance of Liquid-Immersed Power Transformers – Mike Lau**

See Attachment K.4.1 for the detailed discussions regarding Vacuum Hold Time, Set Time (rest time after oil fill), and Soak Time (energized without load), static electrification, pump run time.

##### **K.4.2 Revision of C57.125 Guide for Failure Investigation, Documentation, Analysis and Reporting for Power Transformers and Shunt Reactors – W. Binder**

See Attachment K.4.2\_\_\_ for the detailed discussions of motions regarding the following: **Passed** - Use term “insulating liquid” in place of other forms, accept bibliography & references, **Passed** - Safety clause from C57.152 into C57.125 document in its entirety, **Passed** - To remove Annex A – Testing and replace with Proposal, Motion **not recognized** due to (Annex A removed) - Revise Draft to include reference to PD Measurement, **Passed** - Dissolve “TF on Merger of C57.117 into C57.125”, **Passed** - Go to ballot with Draft 5.1, and **Passed** - Form an Editorial Review / Ballot Resolution TF. There was a report on Coordination Activities with CIGRE given.

Wally Binder requested the Power SC acceptance and concurrence to go to ballot and requested a motion be made. Bill Bartley motioned that PTSC vote for PC57.125 to go to Ballot with Second by Dave Wallach. PTSC Chair asked for discuss and questioned if all the work was complete based on WG Chair report. Wally Binder explained only editorial changes to Draft 5.1 are required and those would be made prior to submitting for IEEE editorial review. With that understanding the PTSC Chair asked for a vote. There were no objections, and no one abstained. PC 57.125 **Passed** to Go to Ballot.

##### **K.4.3 Development of PC 57.153 Guide for Paralleling Transformers - Tom Jauch**

See Attachment K.4.3 for the detailed discussions of motion to go to Ballot and formation of Ballot Resolution Group.

Tom Jauch requested the Power Transformers SC acceptance and concurrence to go to ballot. The WG Chair motioned that PTSC vote for PC57.153 to go to Ballot with Second by Dave Wallach. PTSC Chair asked for discussion, there was none There were no objections, and no one abstained. PC 57.153 **Passed** to Go to Ballot.

##### **K.4.4 Development of PC57.156 Guide for Transformer Tank Rupture Mitigation of Liquid-Immersed Power Transformers and Reactors - Peter Zhao**

See Attachment K.4.4 for the detailed discussions.

#### **K.4.5 Development of PC57.157 Guide for Conducting Functional Life Tests for De-Energized Tap Changer Contacts - Phil Hopkinson**

The WG Chairman brought up Draft 5.1 of the PC57.157 Guide and began reading through the draft and discussing comments from the group.

Comments that were received from Draft 5 / 5.1 were reviewed. There were still comments with no resolution due to time constraints of the meeting, so they will be reviewed by TF after this meeting. 12 of the 37 comments for review from Draft 5 were discussed and resolved (see chart at end of minutes).

It was suggested to use a task force to review the comments received. Representatives from several switch manufacturers were suggested by the chairman to be a part of this task force.

The plan is to have open comments reviewed/implemented and then the Draft 6 will be created and circulated through the WG for ballot by the Fall 2014 meeting.

See Attachment K.4.5 for the details.

#### **K.4.6 Development of Standard Requirements for Phase Shifting Transformers - IEEE/IEC 60076-57-12 - Raj Ahuja**

See Attachment K.4.6 for the details .

WG Chair requested PTSC To move forward with submitting Draft#6 of IEEE/IEC 60076-57-1202 Standard on Phase Shifting Transformers for IEEE sponsor ballot.

PTSC Chair asked for discussion, and Jodi explained the IEEE / IEC process regarding moving forward in the approval process. There were no objections, and no one abstained with respect to IEEE / IEC 60076-57-12 proceeding with the process of approval and balloting.

#### **K.5 Old Business**

None

#### **K.6 New Business**

##### **K.6.1 IEEE 638 Revision of IEEE Standard for Qualification of Class 1E Transformers for Nuclear power Generating Stations**

Standard was approved in December 2013

##### **K.6.2 Three Working Groups ready to go to Ballot once POWER SC approval achieved.**

Results of proceeding to ballot are list with each Working Group.

##### **K.6.3 New Task Force to consider IEC / IEEE Tap Changer harmonization - Craig Colopy**

The goal is to bring the IEEE and IEC documents into similar updating timing to avoid the leapfrog revisions that have been occurring by IEEE adopting IEC or . There are different options, which will be the task force's purpose to review and recommend an appropriate means to bring the updating similar or identical time periods.

See Attachment K.6.3.

Discussion points – TC Chair asked what would be the improvements. Axle explained the IEC has Part 1 and Part 2. The IEEE does not have the application guide. If IEC part 1 is adopted the content of Part 2 would be excluded, we should strive to include both parts.

A motion to form a Task Force to study how best to create application guide for tap changers, in conjunction with IEC, was made by Craig Colopy, Seconded by Dieter Dohnal. Motion passed with one SC member abstaining.

**K.7 Adjournment**

The meeting adjourned as scheduled.

**K.8 Attachments –Working Group Meeting Minutes and Agenda**

Attachment K.4.1 – PC57.93 Installation Guide

Attachment K.4.2 – PC57.125 Failure Investigation

Attachment K.4.3 – PC57.153 Paralleling Guide

Attachment K.4.4 – PC57.156 Tank Rupture Guide

Attachment K.4.5 – PC57.157 Functional Life DETC Guide

Attachment K.4.6 – IEEE / IEC 6076-57-12 Phase Shifting Transformers

Attachment K.6.3 – TF IEC / IEEE Tap Changer harmonization

Attachment K.2 – S14 PTSC Agenda

## **WG Revisions to Installation of Power Transformers C57.93**

**Monday, March 24, 2014 11:00 AM – 12:15 PM**

**Savannah, GA**

### **Minutes of the Working Group Meeting**

Chair Mike Lau called the WG meeting to order at 11:00 am on March 24, 2014. 15 of 28 members were present, so a quorum was achieved. 28 guests also attended, for a total attendance of 43. 5 guests requested membership.

A motion to approve the agenda was made by Dieter Donhal, seconded by Mike Miller. The agenda was approved unanimously. The Fall 2013 meeting minutes were approved by acclimation.

Chair Mike Lau presented a summary of comments received re the vacuum processing tables.

The following tables were discussed:

- **Vacuum Hold Time**

It was noted the oil temperature must remain high enough to prevent moisture from freezing for vacuum processing to be effective. Mike Lau suggested the existing vacuum hold times be retained, but with periodic heating cycles to address the heat of vaporization issue. This suggestion was accepted by the working group.

- **Hold and Set Times**

It was agreed the title should be change to Set Time (The Doble guide refers to this as Stand Time). It was asked why different hold times were recommended for new units versus serviceaged units. It was agreed that the set times for new and old/reprocessed units should be combined into a single table with common values.

Tom Melle made a motion to survey the working group asking what set times are typically used, seconded by William Solano. An amendment to the motion was proposed by Joe Watson to include all vacuum processing criteria in the survey, but there was no second. The original motion was passed unanimously. Tom Melle will submit the survey request to the officers for distribution to the working group.

- **Hold and Set Times – Running Pumps**

The Doble guide recommends different stand (set) times when pumps are running or not running. The issue of static electrification was raised and there was agreement this issue needs to be addressed. Static electrification may occur with high oil velocity through the winding and is not proportional to pump capacity. It affects primarily units with directed oil flow designs. Joe Watson agreed to draft a clause for the guide which will address the dangers of static electrification.

- • **Soak Time**

The discussion focused on why soak times are necessary. It was suggested soak times offer no value to ensuring the integrity of the transformer. Users responded soak times were used to check for initial gas accumulation, warm the unit prior to cold load pick up, and to reduce switching loads due to a failure. Soak times, if used, will depend on why the transformer is being filled (i.e. bushing change out, retrofilling, unit failure) and how long the active parts were exposed to air. The question of the need for soak times was not resolved.

The chair proposed to combine the set time tables for new and old units into one table. This proposal was accepted with no objections.

It was affirmed again that the manufacturer's installation procedures will take precedence over this guide's recommendations.

Ewald Schweiger volunteered to draft a proposal to remove the shipping and handling clauses, and refer instead to C57.150, the new transportation guide.

Stephanie Denzer and Jim Graham agreed to draft a proposal for installation of transformers filled with natural ester insulating liquids.

The working group meeting was closed by acclimation at 12:15 pm.

Respectfully submitted

Mike Lau	Saurabh Ghosh	Jim Graham
WG Chair	Vice Chair	Secretary
March 24, 2014		

**WG for Revision of C57.125 Guide for Failure Investigation, Documentation, Analysis and Reporting for Power Transformers and Shunt Reactors**

**Meeting Minutes**

**March 24, 2014**

**Savannah, GA**

1. Introductions – Identify Representation and Determination of Quorum By Roll Call

Attendance was taken and quorum was established. There were 23 Members and 4 Corresponding Members present at the meeting; 16 members were required for quorum.

2. Presentation of Agenda / Revisions to Agenda Approval of Agenda

Motion was made to approve the meeting agenda and seconded. The motion passed, the agenda was approved.

3. Approval of Previous Meeting Minutes

Milwaukee (Motion to Approve)

Munich (Motion to Approve)

St. Louis (Motion to Approve)

Motion was made by Ken Skinger to approve the three meeting minutes and seconded. The motion passed, the meeting minutes were approved.

4. Chairman's Remarks – Wallace Binder

WG P&P and Transformer Committee P&P Manual(s) Changes

This manual was discussed and approved at the main committee meeting. No additional discussions were held.

Membership Changes

1. Roster cuts (21 changed to Guest or Corresponding)

2. Welcome New Members (Membership now @ 28)

Adam Sewell

Jeremy Sewell

Chuck Sweetser

Membership was discussed and the above three new members were introduced.

Schedule for Revision of C57.125

Schedule was discussed: PAR expires 12/31/2015; RevCom submission date 10/19/2015; Document completion date 09/01/2015.

5. Old Business

- Surveys -Draft 4 Comment Resolution (No quorum on survey return)
- Motion to use term “insulating liquid” in place of other forms (discussed at Milwaukee included in Survey D4).

Ken Skinger proposed this motion, xx seconded the motion, motion passed

- Motion to accept bibliography & references (discussed at Milwaukee).

Bruce Farris proposed this motion, Ken Skinger seconded the motion, motion passed

- Motion to add Safety clause from C57.152 into C57.125 document in its entirety (approved in Munich, recorded as short of quorum).

Ken Skinger proposed this motion, Kipp Yule seconded the motion, motion passed

- Motion (Tabled at St Louis) to remove Annex A – Testing and replace with “Proposal A”

Jin Sim discussed his comparison of Annex A to C57.152. Jin proposed that a Annex A be removed from C57.125 and a Task Force be formed to identify and include any testing information from C57.125 Annex A into C57.152. Ken Skinger seconded this motion, the motion passed.

- Motion to Revise Draft to include reference to PD Measurement (discussed in St. Louis, Shown on “Proposal B”)

Because Annex A will be removed, this motion is not necessary and was not recognized.

#### 6. Report on Coordination Activities with CIGRE – Thomas Melle

The minutes from the last CIGRE meeting will be posted on the Transformer Committee web page under this Working Group.

#### 7. New Business

- Motion to Dissolve “TF on Merger of C57.117 into C57.125” (Task complete – housekeeping)

John Roach made this motion, Bruce Farris seconded the motion. The motion passed.

- Draft 5.1 (Issued to members 2014/03/02 & posted on Web Page since 2014/03/04)
- Motion to go to ballot with Draft 5.1 (Requires 2/3 Majority)

Adam Sewell made a motion and Kipp Yule seconded the motion. The motion passed: (15) Yes votes, (3) No votes; and (2) Abstentions

- Motion to Form an Editorial Review / Ballot Resolution TF  
Ken Skinger made this motion and Diego Robalino seconded the motion. The motion passed.

- Other New Business

Matt Lawrence discussed the failure population database being developed by Doble Engineering. Mark Rivers of Doble will be invited to the Fall 2014 meeting to speak in greater detail on the subject.



8. Announcements

No announcements were made.

9. Adjournment

Greg Anderson made a motion to adjourn the meeting and Ken Skinger seconded the motion. The meeting was adjourned.

Respectfully Submitted,  
John Roach, WG Secretary  
Wallace Binder, WG Chair (2014/05/15)

**Minutes from WG Transformer Paralleling Guide PC57.153**

Savannah

Tuesday, March 25, 2014

4:45-6:00pm

Chair – Tom Jauch

Secretary – Mark Tostrud

Vice Chair – Jim Graham

Total attendees - 57

24 of 33 members were present

1 corresponding member was present

32 Guests (16 new)

Attendance was recorded in AMS

New members are not being added since we are in the balloting process.

- Introductions
- Quorum was achieved
- Motion to approve the minutes from St. Louis
  - 1<sup>st</sup> Sanjib Som
  - 2<sup>nd</sup> Roland James
  - Vote
    - Yes - unanimous
- Motion to approve the agenda for this meeting
  - Hemchandra Shertukde
  - Marnie Roussell
  - Vote
    - Yes - unanimous
- Results of the vote to go to ballot on rev 9.1
  - Results of the vote
    - Yes – 19
    - No – 10
    - Abstain – 1
  - Fast response group was formed to resolve comments
- Results of the vote to go to ballot on rev 9.2
  - Results of the vote
    - Yes – 23
    - No – 6
    - Abstain – 2
- Comments on the vote to go to ballot
  - Bill Bartley/Erin Spiewak/Don Plaatz commented on the balloting process
  - Working group officers recommend we go to ballot
  - Members are working to resolve some of the comments that we expect to receive during ballot

- Jim Graham was appointed to lead the ballot resolution committee
  - Requested members send an email if they want to join the ballot resolution committee
  - Ballot resolution committee needs to contain a balanced interest of members, manufacturers and consultants
  - Plan to have one ballot resolution committee but will divide the document into sections and assign resolution committee members to expedite the resolution of comments
- Discussion of comments that were submitted on the last draft 9.2
- Meeting was adjourned at 6:00pm

**REPORT OF MEETING**  
**WG PC57.156– GUIDE FOR TANK RUPTURE MITIGATION**  
**1:45pm – 3:00pm Monday 03/24/14**  
**Savannah, GA**

The meeting of the Working Group for the Guide for Tank Rupture Mitigation convened Monday afternoon at 1:45pm. Chairman Peter Zhao presided.

Attendance was 63 (17 members, 46 guests). Membership is 44. Therefore a quorum was not achieved. As a result, we were not able to approve the agenda nor actions discussed in regard to the Guide.

Chairman Zhao provided introductory remarks and previewed the agenda to be covered for the meeting.

After introductions and distribution of rosters, a discussion ensued in regard to responses received from Jos Veens and Matthew Brien. Jos and Matthew had agreed to check with their reviewers in regard to comments/recommendations originally submitted. Vice Chairman Thompson led a review and discussion of items for change and for the one remaining open item remaining from the original list of comments/suggestions.

General Source Items for which revisions are planned:

The latest changes to the guide were reviewed for information and discussion.

Matthew Brien new Items (Matthew not present):

- Matthew suggested that the title of the guide should be changed if scope includes prevention of rupture as well as mitigation of rupture and thought it unclear as to what scope is.
- Under 4.1 “Conventional Tank construction, Matthew objects to the wording referring to a ‘slow rate of increase in pressure’ as such a case for which the pressure relief device(s) would not suffice to protect are rare.
- Under 4.2 “Improved Tank Strength”, Matthew disagrees with recommendation that rupture would be prevented or mitigated by corner reinforcement, but suggested that it would simply move the problem to another location.
- In clause 4.2, “Improved Tank Strength”, Matthew suggests that general guidelines be provided as to best locations of PRD’s.
- Matthew suggests that the entire section on TTPRS and Design Review be moved out of the document, as they constitute disproportionate portions of the guide.
- Matthew suggests removal of section 7.4 “Tank Deflection Test” as it would be difficult to consistently measure in all areas and may not provide useful information to the User.
- Matthew suggests addition to section 7.5 “Tank Pressure Test” to add verbiage in regard to system mitigation measures such as fault limiting, surge protection, etc., which may prevent internal transformer faults.

Jos Veens Items:

- Agreed to add to the sentence under “Design Review” (clause 7.1) “The welding procedure should be reviewed, along with the results of strength tests on sample welds” – “if available”.
- Agreed to merge section 7.4 “Tank Deflection Test” and 7.5 “Tank Pressure Test” and rewrite on the basis of testing in the elastic region by agreement between Owner and Manufacturer.
- Discussed balance between Owner’s desired information/testing versus Manufacturer’s reasonable capability/willingness. Jin Sim suggested that a reasonable expectation of the Owner would be similar to what is provided in regard to proving/justifying the hot spot for a proposed transformer. Jin suggested that what is unreasonable is to require dynamic testing.

This issue caused considerable discussion of the issue of ‘reasonable expectations of the Manufacturer by the Owner. It was suggested that the manufacturer should be expected to develop his own methods for adequately validating the transformer’s capabilities by the use of type testing and calculations.

There was discussion of a paper published around reduction of fault current, but design of protective relaying systems, etc. to control not only fault current, but duration of fault currents.

Mike Spurlock or AEP stated that most utility installations have already done about all they can to practically to minimize stresses that lead toward transformer failures.

Chairman Zhao concluded the meeting by informing that plan to proceed to ballot/review within the membership in lieu of general balloting, and that no more informal comments will be accepted.

As our allotted time had run out the meeting was concluded.

Meeting was adjourned at 3:00pm.

Respectfully,  
Robert Thompson, V Chair

**Working Group for  
Standard Requirements for Phase Shifting Transformers  
WG IEEE/IEC 60076-57-1202**

**Meeting Minutes –March 25, 2014**

**K.9 Savannah, Georgia USA**

**K.10 Raj Ahuja, Chair; Paul Jarman, Vice-Chair; Stephen Antosz,  
Secretary**

The WG met from 11:00 AM to 12:15 PM at the Marriott Hotel.

Welcome announcements were made. Introductions of all in attendance were done. The St Louis minutes of the previous meeting were approved. The Agenda was presented and approved.

Agenda:

- Introduction of members & guests
- Roll call for quorum
- Approval of Fall 2013 minutes
- Report on the working Draft prepared after Fall 2013 meeting
- Update on comments received from WG members on draft dated 021514
- Input from WG members on any comments on the Draft
- Target Dates, Meeting Schedule
- Adjourn

There were a total of 60 in attendance. 24 members and 36 guests. 8 guests requested membership. 4 were accepted since they attended a previous WG meeting. There were 24 of 32 members in attendance, so we had a quorum, and a 2/3 majority.

The attendance roster was circulated. The Chair gave a report on a summary of the WG activities done so far and planned activities for future schedule.



### Work done after St Louis Meeting



- Contributions on the Draft and Annex from WG members/Dec. 2013
- WG meeting on Jan 22nd and 23<sup>rd</sup> 2014 at Nijmegen, hosted by Smit, reviewed comments received on Draft, and continued working
  - ☐ Section 3: Terms and Definitions – modified few terms used in the existing guide and added new definitions
  - ☐ Section 6: Rating and General Requirements – Revised/Updated
  - ☐ Section 9: Connection and Phase displacement Symbols
  - ☐ Section 10: Rating plates
  - ☐ Section 11: Terminal Markings and phase rotation
  - ☐ Section 12: Information to be provided by manufacture
  - ☐ Section 13: Tests
  - ☐ Section 14: Tolerances



### Work done after St. Louis meeting





- ☐ Annex A: Check list of information to be provided with enquiry and order – Draft Completed
- ☐ Annex B: Behaviour of a Phase Shifting Transformer with non-symmetrical fault currents – Draft Completed
- ☐ Annex C: Specification of buck capability – Draft Completed
- ☐ Annex D: Additional noise measurements -- Draft Completed
- ☐ Annex E: Calculation of phase angle under load – Draft Completed
- ☐ Annex F: Additional Phase Shifter Connections
- Circulated 5<sup>th</sup> Draft to all WG members in Feb. 2014
- Received 56 comments from 8 members till 3/22/14, reviewed comments on 3/24/14, from 6 PM to 9:30 PM, reviewed remaining technical comments at WG meeting on Tuesday 3/25/14.
- Draft will be updated for these and Editorial/General comments on Thursday 3/27/14.



### WG Meeting Update





- On Tuesday March 25<sup>th</sup> WG members approved a motion
  - to move forward with a motion to PT SC for submitting Draft#6 for IEEE Sponsor Ballot
  - The vote was unanimous in support. And we had better than a 2/3 majority of members in attendance.



Motion for Sponsor ballot

**Motion for Subcommittee members**

To move forward with submitting Draft#6 of IEEE/IEC 60076-57-1202 Standard on Phase Shifting Transformers for IEEE sponsor ballot



Future Planned Activities

- Circulate Draft to IEC member countries
- Initiate sponsor Ballet to IEEE Members
- Due date for Comments -- Mid July 2014
- Compile Comments -- August 2014
- Discuss comments and revise CD to CDV
- Plan for CDV - Dec. 31<sup>st</sup> 2014
- IS/TS **March 31<sup>st</sup> 2015, 1 Year Extension will be required**

☐ IEEE

➤ PAR Expires 12/31/2016

The meeting adjourned.

Respectfully submitted,  
Stephen Antosz  
IEEE WG Secretary



Power Transformer Sub Committee New Business

**New Task Force to consider IEC / IEEE Tap Changer harmonization - Craig Colopy**

**Attachment K6.3**

Power Transformer Sub Committee New Business

**New Task Force to consider IEC / IEEE Tap Changer harmonization - Craig Colopy**

- 1.) Introduce IEC On Load Tap Changer Team (below).
- 2.) Propose to SC to have an Application Guide for ON Load Tap Changers
- 3.) If approved, propose to SC to have a joint revision of IEC 60214-2 for dual logo process
- 4.) If approved have Joe Watson appoint Chair and Vice Chair and issue directions to create a PAR
- 5.) PAR to be approved at June SASB
- 6.) Two day WORK Meeting in Montreal in July for joint revision of IEC 60214-1
- 7.) Propose to SC to start process of adopting IEC 60214-1 to replace C57.131 by establishing a task force to review Published version. Appoint Task Force Chair and Vice-Chair



**New Task Force to consider IEC / IEEE Tap Changer harmonization - Craig Colopy**

Attachment K2 – Agenda

## AGENDA

IEEE Transformers Committee / Power Transformers Subcommittee  
Wednesday, March 26, 2014, 1:30-2:45 PM  
Savannah BC Room, Savannah Marriott Riverfront Hotel, Savannah, GA  
Joe Watson – Chair, Bill Griesacker – Vice Chair, Kipp Yule - Secretary

1. Call to order
2. Introduction and distribution of attendance sheets
3. Determination of a quorum
4. Approval/correction of the fall 2013 minutes
  - a. Add C57.131/IEC 60214 discussions
5. Report from the Administrative Subcommittee meeting
6. New Business
  - a. A new TF to prepare a comparison of C57.131 and IEC 60214 and present a recommendation on whether we should or should not merge both documents into a joint logo document
7. Working Group and Task Force reports

Project or Standard Number	Title	Chair
C57.12.10	Revision of IEEE Standard Requirements for Liquid-Immersed Power Transformers*	Gary Hoffman
C57.17	Revision of Requirements for Arc Furnace Transformers*	Robert Ganer
C57.93	Revision of IEEE Guide for Installation and Maintenance of Liquid-Immersed Power Transformers	Mike Lau
PC57.116	Revision of Guide for Transformers Directly Connected to Generators*	Gary Hoffman
PC57.125	Revision of Guide for Failure Investigation, Documentation, Analysis and Reporting for Power Transformers and Shunt Reactors	Wallace Binder
PC57.140	Revision of Guide for Evaluation and Reconditioning of Liquid-Immersed Power Transformers*	Rowland James
PC57.153	Development of Guide for Paralleling Transformers	Tom Jauch
PC57.156	Development of Guide for Transformer Tank Rupture Mitigation of Liquid-Immersed Power Transformers and Reactors	Peter Zhao
PC57.157	Development of Guide for Conducting Functional Life Tests for De-Energized Tap Changer Contacts	Phil Hopkinson
IEEE 638	Revision of IEEE Standard for Qualification of Class 1E Transformers for Nuclear power Generating Stations*	Craig Swinderman
IEEE/IEC 60076-57-1202	Development of Standard Requirements for Phase Shifting Transformers	Raj Ahuja

\* No meetings were scheduled in Savannah for these documents

8. Old Business
9. Collection of Attendance Sheets
10. Adjournment