## Dry Type Transformers SC Chair Charles Johnson

**Acting Secretary Casey Ballard**

* + 1. **Introductions and Approval of Agenda and Minutes**

The Subcommittee met on October 23, 2013 at 1:30 PM. There were 14 of 21 members present (therefore we had a quorum), 2 corresponding members, and 18 guests present, 5 guests requested membership.

The agenda was approved unanimously after a motion from Sanjib Som and a second from Tim Holdway.

The minutes of the Milwaukee, WI meeting were approved unanimously after a motion from Carl Bush and a second from Tim Holdway.

The minutes of the Munich, Germany meeting were approved unanimously after a motion from Dave Stankes and a second from Roger Wicks.

* + 1. **Working Group/Task Force Reports**

The next order of business was the presentation of the reports of the various working groups and task forces. See the following sections for the individual reports:

## IEEE PC57.12.01 - Dry Type General Requirements Chair Tim Holdway

The working group met in the Landmark 7 Room of the Renaissance Grand Hotel St. Louis.

The meeting was called to order at 1:45 PM by Chairman Tim Holdway

The meeting was convened with 17 members (out of 24 – therefore a quorum was reached with 71% attending) and 29 guests present with 3 requesting membership.

The agenda was approved unanimously.

Motion: Casey Ballard

Second: Mike Haas

The minutes of the Munich March 18, 2013 meeting were approved unanimously.

Motion: John K. John

Second: Kerwin Stretch

The chair reminded the membership what it meant to be a member of the working group and that included participation in balloting, surveys, and attendance at all meetings. He offered an opportunity for anyone who did not want these responsibilities to remove their name when the attendance roster was circulated

Old business

* Draft 3 was balloted with 90 responses, 79 approval, 7 disapprove and 4 abstentions. From these responses, there were 107 comments. These comments were submitted to the WG membership by the chair on 10-3-13.

New business

* There was a proposal made that a task force be setup to ‘help resolve the comments’ that passed unanimously.
  + Motion: Chuck Johnson
  + Second: Rick Marek
* The chair agreed to chair the task force with the following members volunteering to participate:
  + Carl Bush
  + Sanjib Som
  + Rick Marek
  + Kerwin Stretch
  + Chuck Johnson
  + Sasha Levin
  + John K. John
  + Derek Foster
  + Dave Stankes
  + Dhiru Patel
  + Casey Ballard
* Table 9 was modified and presented by Chuck Johnson for discussion
  + The group agreed to keep his proposals.
  + Rick Marek proposed that 150 be changed to 155.
  + Vijay Singh proposed that 240C be added.
  + The TF will address his proposal.
* Section 5.10.1 was modified and presented by Chuck Johnson for discussion
  + The group agreed to accept his proposal
* Introduction rewrite was proposed by Peter Balma
  + The group agreed to accept his proposal
* There was a proposal to modify the scope from ‘This standard describes electrical, mechanical, and safety requirements of single and polyphase ventilated’ to ‘This standard describes electrical and mechanical requirements of single and polyphase ventilated’. The motion carried unanimously.
  + Motion: Rick Marek
  + Second: Chuck Johnson
* There was a proposal to modify the purpose from ‘This standard is intended to serve as a basis for the establishment of performance, interchangeability, and safety requirements of equipment described, and for assistance in the proper selection of such equipment.’ to ‘This standard is intended to serve as a basis for the establishment of performance and interchangeability requirements of equipment described, and for assistance in the proper selection of such equipment.’ The motion carried unanimously.
  + Motion: Rick Marek
  + Second: John K. John
* There was a proposal to search the document for the word ‘safety’ and for the TF to remove them accordingly. The motion carried unanimously.
  + Motion: Chuck Johnson
  + Second: Mike Hass
* There was a proposal to remove the Note from 4.2.1. The motion carried unanimously.
  + Motion: Casey Ballard
  + Second: Rick Marek
* The following topics were proposed in the balloting and will be further addressed by the TF
  + Equation 8 and the removal of exponent 2
    - The group agreed to leave the exponent 2
  + The following definitions were discussed in reference to this standard and C57.12.80. The TF will determine the need for and define the following winding types
    - Cast coil
    - Resin encapsulated
    - Vacuum cast
    - Open Wound
  + Section 5.8 references ‘product standards’ which are commonly considered to be C57.12.51 and C57.12.52.
    - The TF will determine if these should be added to Section 5.8 and Section 2

Next meeting: Spring 2014, Savannah, Georgia USA, March 23-24 2104.

With no further business, the meeting was adjourned at 2:58 PM.

Motion: Sanjib Som

Second: Chuck Johnson

## WG Dry Type O&M Guide C57.94 Chair Dave Stankes

The working group met in the Landmark 1 Room of the Renaissance Grand Hotel.

The meeting was called to order at 4:45 PM by Chairman David Stankes.

The meeting was convened with 14 out of 21members (enough for a quorum) and 17 guests present with 1requesting membership.

The minutes of the Milwaukee (Fall 2013) and Munich (Spring 2013) meetings were approved by unanimous vote – proposed by Tim Holdway and seconded by Chuck Johnson.

The agenda was approved unanimously – proposed by Carl Bush and seconded by Roger Wicks.

The chair discussed the timeline of the PAR leading to the end date of Dec 2015.

Document Review

1. There was a motion to consolidate and/or add titles as proposed in Munich – proposed by Richard Marek and seconded by Jerry Murphy – approved by unanimous vote
2. A proposal was presented to delete terms “cast coil”, “resin encapsulated winding” and “solid cast windings” – Richard Marek explained that the deletion of these winding types corresponds with definitions reviewed and approved during the C57.12.96 loading guide balloting. The motion to eliminate these above mentioned definitions was proposed by Casey Ballard and seconded by Richard Marek – motion carried unanimously. Rick Marek mentioned that the SC may investigate reviewing C57.12.80 to make sure all definitions were updated and correct.
3. Carl Bush brought up the question as to whether or not the reference to poly-phase in the scope be eliminated. Chuck Johnson explained why that would be unsustainable, noting that the effort is to generalize winding types and not eliminate scope of transformer applications.
4. There was a motion to drop the note in the definition of seal dry type transformer – proposed by Richard Marek and seconded by Chuck Johnson. There was some discussion regarding whether or not the note should remain, but be amended to eliminate reference to fluorocarbons which are no longer used. After some discussion a vote was taken, and the motion to eliminate the Note was approved.
5. Just prior to the meeting, the Chairman received extensive comments regarding Section 6 Testing from a Jill Duplissis, a guest of the Working Group. The Chair thanked Jill for her comments, and displayed these comments on the screen for discussion. One comment that was discussed was the proposed elimination of SFRA testing. Casey Ballard commented that he would recommend retaining the reference use of SFRA, which has been requested by several customers who actually bring their own instrument in for measurement. Carl Bush recommended replacing the SFRA abbreviation with its completely expanded description. There was a very animated discussion for 15 minutes at the end of which the Chair proposed that a separate (web conference) meeting be planned to review Section 6 Testing. He also noted that the comments and proposals received from Jill Duplessis would be sent out by email to all WG members and guests prior to the meeting so that they had sufficient time to review.

No new business was proposed.

The motion to adjourn was proposed by Tim Holdway and was seconded by Jerry Murphy. The meeting ended at 5:59pm.

* + 1. **Old Business**

The chair presented the standards report for the dry-type standards and reminded the members that the group is small and must stay on top of the standards to keep them current.

Casey Ballard spoke about the need to update C57.12.55 which is outdated when compared to CSA C22.2 No. 94-M91, IEC 60529, and NEMA 250. He asked for reviewers to compare the standards so that the SC can be updated in Savannah. Chuck Johnson and Jim Atwiler agreed to join the existing group of Kerwin Stretch, Sanjib Som, and Vijay Tendulkar. Casey will provide a secure, password protected, copy of the standards referenced above working with Erin Spiewak from IEEE.

* + 1. **New Business**

Casey Ballard noted that he had been nominated by Phil Hopkinson in the TC14 meeting to represent the US when IEC 60076-11 is opened for revision. He asked the membership to provide him input on any changes that might be needed.

There was a discussion on how to update the definitions in C57.12.80 once they were completed by the TF from C57.12.01. There was not a clear answer so the Chair agreed to research it further.

Roger Wicks and Jewan Puri commented that C57.12.58 should be opened to allow for enough time for a WG to make changes. The Chair asked them to review the current version and provide feedback in the Spring 2014 meeting.

C57.12.91

* The past chair, Derek Foster is considering opening up this document for revision. He held an informal session in which the attendees agreed on some topics to address.
* There was a TF created by the SC Chair and it will have its first meeting in Spring 2014
* Jewan Puri offered to present a tutorial on sound from the TF in C57.12.90

Sheldon Kennedy asked for the groups input on the maximum allowed temperature for a grounding transformer. There was some limited discussion, but Sheldon agreed to provide the Chair with more information to be distributed to the SC for their input.

* + 1. **Adjournment**

Being no further business, the meeting adjourned at 2:33 PM