

Unapproved Minutes
IEEE/PES Transformers Committee
Standards Subcommittee Meeting
April 22, 2009 Hilton Hotel, Miami Florida, USA

1. Opening Remarks

- a) Chair, William Bartley summarized the recent activities at the RevCom meeting that resulted in the readiness for issuance of **Transformers Committee Organization & Procedures Manual – April 2009**. The O&P Manual was posted on TC website the following week. (Postscript - link is www.transformerscommittee.org/info/OPMan04-2009.pdf).
- b) The **Spring 2009 Standards Report** website location shown with explanation that it would be presented in detail at the April 23 main meeting. (The link is; http://www.transformerscommittee.org/meetings/S2009_Miami/Minutes/S09-StdsReport.pdf)
- c) The Chair reported from ADCOM meeting, there is a new requirement for documenting comments resolution. This pertains to requirement of “evidence of consideration” that shall provide a means for all comment to be documented, as well as the resolution. Use the comment resolution feature.
- d) There is also a new 2009 IEEE Style Manual, and everyone that is starting a new Working Group is encouraged to use the 2009 IEEE Style Manual. You will find the link in the **Spring 2009 Standards Report** noted above, or may go directly to new “2009 IEEE Standards Style Manual” on IEEE Standards website at the following URLs: http://standards.ieee.org/guides/style/2009_Style_Manual.pdf

2. Meeting Attendance

The Standards Subcommittee met on Wednesday, April 22, 2009, at 4:30 PM. A count of members request to stand if believed to be members showed 17 members in attendance. (Noted as not enough for a quorum; however, business as usual was conducted). The meeting roster was circulated.

3. Approval of previous meeting minutes

Vice Chair motioned for approval of the previous meeting minutes. The meeting minutes from the Fall 2008 meeting in Proto, Portugal were approved as written.

4. Working group reports.

- a) **Cont. Revision of C57.12.00** – Bill Bartley provided the initial ballot results as; 129 affirmed, 15 negative with comments, and 16 abstained. The present status is that ballot resolution is complete and that standard would go back out for re-balloting.
- b) **Cont. Revision of C57.12.90-2006 – S. Antosz**- The jointly timed ballot of C57.12.00 and C57.12.90 results for C57.12.90 from Oct 2008, were a total of 26 ballots, with 7 negatives and 109 comments. The comments and resolution were documented, per the evidence of consideration, and a recirculation was held on March 6, 2009 resulting in 3 of the previous negatives changing to approved and 4 not responding. Therefore, after consulting with the appropriate Subcommittees there is nothing holding the publication of C57.12.90. However there was one new strong negative that will be discussed in this meeting. In this case the Chairman is actually a working group of one, and there are not working group meetings per se. This meeting was used to discuss the issue point of when a seller should notify the buyer when the manufacturer can not meet the rise time for full wave impulse (dielectric, session 10.3.1.1). The issue is: Should it be at time of bid (which would be the buyer preference); or should it be after the electrical design, when the manufacturer actually knows the design versus the test equipment capability. Following a discussion on both rise time and tail time, many opinions were provided, but no clear consensus was reached. The issue will be taken to the Dielectric Test Subcommittee, as an open action by Chair (S. Antosz).
- c) **PC57.12.70 Terminal Markings Revision – S. Shull** – The goal is to bring much of the IEC nomenclature regarding terminal markings into the IEEE document. Much work has been done to date, and there the research being performed to determine if the IEC figures can be brought into the document. Progress continues.
- d) **WG on Revision of IEEE C57.152 (old 62) –Jane Verner** – Draft 3 of PC57.152 is posted on the website. Three web meetings were held since Porto. We are estimating the document is at 80% completion with thirty sections submitted and reviewed. At the March 26 web meeting a limit of an acceptable power factor in the guide was discussed. Follow up research on typical power factor for rectangular core construction limits on new units was made. Further discussion took place in Miami with

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one suggestion that if the limits were included the guide may be in conflict with C57.12.90. The Factory Test standard is different than the Field Guide and there was much debate. In the end a vote strongly favored the inclusion of a power factor limit as this is a Guide and many users especially smaller utilities and municipals, need some basis for an indication of a further investigation or not. Often records of factory testing are not available. The Guide will also include a statement to review the change in power factor over the life of the unit.

- e) **PC57.12.80 – Terminology for P & D Transformers – B. Chiu** The document went to ballot in March 2009, and presently is going through comment resolution. Upon comment resolution the PC57.12.80 will go out for recirculation. The members were recognized for their cyber space contributions (no formal meeting held). The ballot had 97% response with only 3 negative ballots. There were over 100 comments many editorial. The key areas normative versus informative, IEC being a normative – will be moved to informative. Look for recirculation in about 10 days, and then it will go to RevCom.
- f) **TASK FORCE on IEEE-IEC CROSS REFERENCE – J. Sim** Progress is held up waiting for work to be completed on the new editions of IEC 60076-1 (General) and IEC 60076-2 (Temperature rise for oil-immersed transformers). Phil Hopkinson is leading the IEC effort for IEC 60076-1 and work is expected to be completed in late 2010. He has previously volunteered to do the comparison work. IEC 60076-2 is further behind and is being circulated as a 2nd CD in June. It will be completed after IEC 60076-1. A new question was raised if there is any IEC information on moisture in paper. There isn't any. However, there is a CIGRE document published. The IEEE TF has used this information for their work.
- g) **TASK FORCE on IEEE-IEC Harmonization – Jeewan Puri** - The issue of IEEE-IEC Standards Harmonization process has been discussed at numerous previous meetings. At the Fall '08 meeting of Admin SC a TF was created, under the auspices of Standards SC with Jeewan Puri as Chair. In order to develop a clear understanding of standards harmonization process, for the TC membership, Mr. Puri then had discussions with Ms. Jodi Haaz - Program Manager of International Standards and some of her associates at the IEEE. Various questions asked by Mr. Puri were as follows:
 - 1. What are the present IEEE/PES policies toward developing harmonized standards?
 - 2. What are the IEEE-IEC harmonized standards supposed to accomplish for the IEEE Standards users?
 - 3. What are the IEEE-IEC harmonized standards supposed to accomplish for the IEC Standards users?
 - 4. Is there a defined process for developing a IEEE-IEC harmonized standard?
 - 5. What are the rules for adopting all or part of the IEC standards contents?
 - 6. What is the difference between Dual Logo and IEEE-IEC Harmonized standard?

No one could find any written agreement or directive from the IEEE or IEC that could answer all of these questions. The TF did find the PES-IEC paper on standards harmonization that describes the following three goals:

- 1. Shed the image that PES is a developer of only U. S. and North American Standards.
- 2. Develop PES standards that are recognized worldwide.
- 3. Enhance liaisons with standards organizations world-wide.

These goals were first spelled out in the early 90s in the IEEE Power Engineering Society's "Vision for the Future" documents. They are supposed to be the regular policy in practice of some of PES standards developing groups. However, over the years these goals have perhaps faded away and that is why we have today only a fuzzy concept of what harmonization is supposed to accomplish. Ms. Haaz and her associates have informed me that at this time we have the following two options available for adopting a part of an IEC standard, or an IEC standard in its entirety:

- 1. IEEE Standards group can help us obtain IEC permission for adopting any part of an IEC Standard, if any one of us so desires.
- 2. IEEE Standards group can help us adopt an IEC standard in its entirety by issuing it as a dual logo document. Such standards are typically developed jointly by IEEE and IEC participants. The details of this process are provided in the Dual Logo Update Presentation.

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I believe that the central goal of our Task Force should be to develop recommendations for the Transformers Committee and the IEEE PES for adopting a clear policy toward the harmonization process for IEEE and IEC standards. Our recommendations should be based on the needs of the users and the transformer manufacturers. We should clearly evaluate the merits of developing PES standards that are recognized worldwide. We should define as to how and if such standards can indeed benefit the industry. We should also review and simplify the present process of accessing and adopting IEC information for developing harmonized documents in the future. The final deliverable of our work should be a position paper summarizing these issues.

4. **Old Business**

None noted

5. **New Business**

- a. **C57.144 - Guide to Metric Conversion of Transformer Standards – Peter Balma** – This standard will expire at the end of 2009. Mr. Peter Balma volunteered to lead the reaffirmation.
- b. **Insulation Fluids Terminology** – Mr. Pat McShane raised a concern about trying to obtain a standardization of terminology for fluids and liquids, mineral oil, dielectric fluids etc, throughout all our transformer standards. The first question is -should it be pursued. The second question is -who would do it. Tom Prevost recommended that documents be changed as documents go through revision. The concern should go back to Insulating Fluids Subcommittee for a decision and plan.
- c. **Class I / Class II** – Jim Graham recommended an “owner” be established to determine if the Class I / Class II designation should be removed from the C57 standards. This subject was raised at a prior main committee meeting (Spring '08) with no follow up action taken. The Standards Subcommittee chair agreed to sponsor a Task Force that will conduct a poll to determine if the Class I / Class II designation should be removed from the C57 standards. Gael Kennedy agreed to serve as Chair, with members Steve Schull, Jim Graham, & Jin Sim.

6. **Adjournment**

The motion to adjourn was made by Chair, and hearing no objections; the meeting adjourned around 5:30PM.

Respectfully Submitted

Kipp J. Yule

Standards SC Secretary