8.2 Distribution Transformer Subcommittee Report

Chairman: Ken Hanus

Meeting Date: 04/22/2009 **Time:** 9:30 – 10:45

Attendance:

Members	**28**
Guests	**32**
Guests Requesting Membership	**4**
Total	**64**

Meeting Minutes / Significant Issues / Comments:

A welcome was made by the Steve Shull explaining that Ken Hanus was unable to attend and he had asked him to conduct the meeting.

A roll call of members was made. This showed that 28 were in attendance of the 53 members. This established a quorum.

At this point, the Steve asked that the guests introduce themselves. Rosters were circulated to provide a permanent record of attendance for the meeting.

Steve asked if everyone had a chance to review the minute of the last meeting. There wasn't very much response to the request. However, Lee Mathews made a motion that the word "motion" be replaced with "recommended" because a quorum was not established at the fall 2008 meeting. This change was seconded by Ed Smith. There was not any discussion and the motion passed. The minutes were accepted as amended.

Steve discussed the requirement for membership in the main committee. He was not sure what Ken had in mind for this entry but he explained that to obtain main committee membership, the individual must have the recommendation of two working group chairman and a subcommittee chairman, all who can verify that the individual has been an active participant for two years (four meetings). He stated the form is available on the Transformer Committee web site. He also pointed out that the applicants qualifications, e.g. resume, list of accomplishments with the committee working groups must be submitted with the application. Obviously, it is important to make sure that the submission is clear and neatly written.

The following reports were submitted by the working groups:

- C57.12.20 – Overhead Distribution Transformers
    - Various dimensions were reviewed on a number of the drawings as well as details of the some of the figures. A gasket survey was reviewed to help determine the temperature limits of the gasket material used on distribution pole transformers. No conclusions were reached. Alan Wilks announced that he was retiring and a new co-chair from the manufacturer sector would be needed
- C57.12.32 Standard for Submersible Equipment – Enclosure Integrity was reaffirmed.
- C57.12.31 – Standard for Pole-Mounted Equipment – Enclosure Integrity – Draft 3
    - This standard has gone through an editorial review and various issues were corrected. A few other details were finalized. The members then approved the standard to go to ballot. The chairs will initiate the ballot.
- C57.12.30 – Standard for Pole-Mounted Equipment – Enclosure Integrity for Coastal Environments – Draft 3

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- An editorial review was done on the document with more work to be done before ballot could be considered.

- C57.12.33 – Loss Evaluation Guide for Distribution Transformers
  - The WG sought guidance from the Distribution Transformer Subcommittee and the administrative Subcommittee as to where this WG should be placed. The WG recommends that it would be best housed in the Performance Characteristics SC as it can address the needs of both power and distribution transformers. The WG agrees that this work should be submitted as a PAR to revise C57.120 and C57.12.33 should be abandoned. The title should be changed to "Loss Evaluation Guide for Transformers and Reactors". The present WG Chair and Co-Chair have offered to continue to serve in these capacities.

- 12.34 – 3-phase Pad-Mount Transformers
  - The document has gone through a straw vote. Most of the items that were raised were address in the meeting. It was also decided to change the 480 volt limit to 600 volts. With these additions and corrections, it was voted to move the draft to ballot.

- C57.12.37 – Electronic data transformer
  - The working group discussed the addition of the DOE values to this document so as to be in harmony with the changes made in C57.12.00. Also Rich Hollingsworth announced his retirement and a new co-chair from the manufacturer sector would soon be needed.

- C57.12.38 – 1 phase Padmount transformers
  - Draft 6.4 was approved with one negative and it will be sent to RevCom with one negative, which was addressed.

- C57.15 – Step Voltage Regulators
  - This standard was balloted and was in the process of addressing the comments. There was some discussion but nothing was resolve. It was decided to send the comments to the working group for further review before the next meeting.

- TF Transformer Efficiency and Loss Evaluation (DOE)
  - There were a number of items brought forth during the meeting to which there was a great amount of discussion. However nothing was finalized. The plan was to work on determining a better understanding of few items by the next meeting.

There was no Old Business.

Under new business, Rich Hollingsworth made a motion to dispense with the TF on Transformer Efficiency and Loss Evaluation (DOE) after the next meeting. Bob Olen seconded this motion. There was a fair amount of discussion. Phil Hopkinson asked that the TF be extended until after the spring 2010 meeting. Ed Smith comment that the TF should determine when their work is completed and then make the recommendation to the subcommittee to be disbanded. Gael Kennedy asked for a point of order to clarify who can establish and also disband the TF. Matt Ceglia stated the subcommittee per the established procedures has the right to appoint and disband WG/TF but he cautioned the group that motions should not be made about future actions, because conditions can change and thus these actions may not be in the best interests of the subcommittee. A motion was made to change "after next meeting" to "after two meetings". The amendment was made and seconded and passed with 16 yes votes, 3 no votes and 9 abstentions. The amended motion was voted and failed with only one in favor.

Jerry Corkran asked to address the committee concerning some issues with the C57.152 field test guide. He indicated that it has been proposed to add a PF requirement level to this guide. He stated C57.12.90 table 4, Note 3.

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NOTE 3—A factory power-factor test will be of value for comparison with field power-factor measurements to assess the probable condition of the insulation. It has not been feasible to establish standard power-factor values for liquid-immersed transformers for the following reasons:

a) Experience has indicated that little or no relation exists between power factor and the ability of the transformer to withstand the prescribed dielectric tests.
b) Experience has shown that the variation in power factor with temperature is substantial and erratic so that no single correction curve will fit all cases.
c) The various liquids and insulating materials used in transformers result in large variations in insulation power-factor values.

This has been in this standard for many years. He went through some examples of PF measurement in various conditions and encouraged the membership to get involved in this working group to prevent them from writing something that is direct conflict with C57.12.90 and possibly providing misleading PF values for diagnostic purposes.

The meeting adjourned at 10:45 AM.

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Date: **04/22/2009**