

Distribution Transformer Subcommittee

Task force / Working Group Report

Document #: C57.12.38 Current Standard Date: November 30, 2009

Document Title: **Standard for Padmounted Type, Self-Cooled, Single Phase Distribution Transformers; High voltage, 34 500 GrdY/19 920 Volts and below, Low voltage, 480/240 Volts and Below; 250 kVA and Smaller**

Chair: Ali Ghafourian Vice-Chair: Michael Faulkenberry

Secretary: _____

PAR Date: _____ PAR Expiration Date: 12/31/2014

PAR Status: Approved

Current Draft Being Worked On: 1.3 Dated: 10/1/2011

Meeting Date: 10/31/2011 Time: 11:00 a.m.

Attendance:	Members	<u>24</u>
	Guests	<u>16</u>
	Guests Requesting Membership	<u>10</u>
	Total	<u>50</u>

Meeting Minutes / Significant Issues / Comments:

The meeting was called to order by Mike Faulkenberry.

A roll call was conducted to determine if a quorum was present. Twenty-two of thirty-two working group members were present at the time of the roll call. Therefore, a quorum was present.

The minutes from the April, 2011, meeting in San Diego were presented and approved.

Ali Ghafourian gave the status of the PAR. It is good through 2014.

A review of Draft 1.3 which contained changes agreed to in the San Diego meeting was conducted and included the following:

- It was noted that the scope of the document stated that the standard pertained to "liquid-filled" transformers as opposed to "mineral oil-filled" transformers. A discussion took place on whether or not the standard should address transformers containing natural ester fluids. A motion was made by Jerry Murphy to leave the document as "liquid-filled" and to include natural ester fluids in the standard. The motion was seconded by Steve Shull and was passed on a vote of the working group members. The manufacturers were asked to provide any changes that need to be made to the standard to account for natural ester fluid use.
- The reference to IEEE Standard 386 in the Normative References had been revised to show the year of publication, 2006. Mike Faulkenberry took as an action item to ensure that the apparent reprint dated 2009 should not be the appropriate date.
- Figure 4 was modified to address the fact that 250 kVA transformers and voltages of 120 volts and 480 volts are now included in the standard, and it has an effect on the stud size needed. Comments indicated that the table as included needed to be made a

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little easier to understand. Mike Faulkenberry will work on revising the table for the next meeting.

- In Figure 5, 277/480Y was added as one of the new voltages covered by the standard. A question was raised about whether or not figures should be included to show dimensional requirements for the various new bushing arrangements in Figure 5. It was agreed that vertical elevation of the lower bushing, vertical separation to the second bushing level, and possibly horizontal separation dimensions needed to be shown. Rather than figures for all the possible bushing arrangements, it was suggested that maybe one drawing with notes to cover other arrangements might be acceptable. Mike Faulkenberry will work on a drawing to address this issue for the next meeting.

Mike Faulkenberry asked the working group members to continue to review Draft 1.3 for any other changes or additions that need to be made.

Justin Pezzin gave a presentation on what had been found by the study group formed at the last meeting to study low voltage bushing cantilever loading. They found that some bushing manufacturers provided loading ratings, although they differed, while others did not specify an allowable loading. After some discussion, it was apparent that there are a number of variables that determine what the cantilever load rating will be. It was decided that in lieu of specifying a minimum loading capability in the standard, it may be a better approach to specify how to determine what the loading rating is so that it is done consistently. Carlos Gaytan stated that there was an IEC standard that addressed how to determine this load rating. He will provide the document number, and the working group will review this standard as a reference for specifying the proper method to determine the cantilever load rating for low voltage bushings.

The meeting was adjourned at 12:03 p.m.

Submitted By: Michael Faulkenberry
Date: 10/31/2011