

# Distribution Transformer Subcommittee

## Task force / Working Group Report

Document #: PC57.12.34

Document Title: 
**Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers, 10 MVA and Smaller; High-Voltage, 34.5 Nominal System Voltage and Smaller; Low Voltage, 15kV Nominal System Voltage and Below**

Chair: Ron Stahara Vice-Chair Stephen Shull

Secretary Stephen Shull

Current Draft Being Worked On: REV 0 Dated: 10/24/2016

Meeting Date: 04/03/2017 Time: 3:15 – 4:30pm

Attendance:	Members	<u>34</u>
	Guests	<u>50</u>
	Total*	<u>84</u>

\* For details of attendance, please refer to AM system of the Transformers Committee

### **Meeting Minutes / Significant Issues / Comments:**

Ron Stahara called the meeting to order and introductions were made. The rosters were circulated. The names of those in attendance are recorded in the AM system. To establish a quorum, a members list was displayed on the screen and those who saw their names were asked to hold up their hand. From this count of hands, it was determined that a quorum was established. A motion was made by Alex Macias and seconded by Brian Klaponski to accept the agenda as shown. The motion passed unanimously. The Patent Slide statement calling for Essential Patent Claims was read and no new patents were brought up but it was noted that the “third door” patent which was held by ComEd and was brought up last time has yet to be resolved. (As a side note, Martin Rave had an LOA form delivered to him at the last meeting and even though it was delivered to ComEd’s legal department, no comment had been received from ComEd’s legal department. So even though a number of attempts had been made by Martin, the status of this has yet to be determined). A motion was made by Jerry Murphy to accept the minutes of the Fall 2016 meeting as amended since were a few spelling/grammar errors brought forth by Fred Friend. This was seconded by Ed Smith. The motion passed unanimously.

Task force reports were given on the following items.

- **Existing Standards - Dan Mulkey, Task Force Chair**

Since Dan was unable to attend, the Vice Chair of the Working Group reported for Dan. This task force found that there were a number of standard updates and corrections that should be made from the standard references found in the current draft. These standards were ASME B30.9™, *Slings: Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings*, IEEE Std 386™, *Separable Insulated Connector Systems for Power Distribution Systems above 600 V*, IEEE Std C57.12.00™, *General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers*, IEEE Std C57.12.28™, *Pad-Mounted Equipment—Enclosure Integrity*, IEEE Std C57.12.70™, *Terminal Markings and Connections for Distribution and Power Transformers*, IEEE Std C57.12.90™, *Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers* and a pending standard IEEE PC12.39, *Standard for Distribution Transformer Tank Pressure Coordination*. All of these suggested corrections were provided to the Chair with the exception of the review of ASME B30.9 and IEEE C57.12.90. After some discussion, Carlos Gaytan and Israel Barrientos volunteered to review ASME B30.9 and IEEE C57.12.90 for any changes that would need to be included

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in the new document. As well, with the resignation of Justine Pezzin from the Working Group, Israel was appointed to this task force.

- **Figure Review - Gary King, Task Force Chair**

As Gary and his team combed through these, they found a number of inconsistencies, as well as editorial, and technical errors. Gary illustrated a number of these for the group so the Working Group would have an understanding of what the task force had encountered. One of the items was the use of a different dimension for an interface that was using a bail as compared to not using a bail. It was commented that the standard needs a default position on this item so that it will be clear what will be specified unless specially called out in a user's specification. The task force's work to date was turned over to the chair.

- **Informative Annex – Items to Consider Steve Shull**

The following list was presented and a hard copy provide to the Working Group.

- Fusing
  - Weak Link
  - Current limiting
    - Underoil
    - Drywell
  - Combo – Weak Link and partial range current limiting
- Under-oil MOV arrester
- Under-oil Primary Switch
- Under-oil Secondary Breaker
- Oil Sampler and Combination Drain Valve
- Oil level Gauge
- Temperature Gauge
- Third Door Compartment- access to various accessories
- Optional barriers for the compartments

Steve stated the hard copy could used as a talking and thinking document. He suggested that as the group reviewed this list that they use the document as a scratch pad to note thinks that may need to be added or removed or placed into the standard. He asked that these be provide back to him so that they could consider when the Annex was created. The discussion led to the discovery that IEEE C57.12.24 had a number of these items incorporated into this standard's body as opposed to an informative annex. One other item that was mentioned was the addition of an explanation of the use of the interface bail that is referred to in some of the drawings and clearances tables.

The chair stated that rather than present a detail listing of each of these items, he would suggest that these be incorporated into a new draft which would denote them as changes. He would hope that this draft could be presented at the next meeting which would occur in the fall of 2017.

Submitted by: Stephen Shull

Date: 04/04/2017