

IEEE PC57.143

Comments and resultant changes since the Fall 2007 meeting:

1) The guide uses both “oil” and “dielectric fluid”. Given all the work on new fluids, it was recommended to replace “oil” with “dielectric fluid” in all cases. When conducting a “search and replace” action in the document, it quickly became evident that a global change would create more confusion. “Dissolved gas-in-oil” has been a common phrase for decades. To publish a document that recommends “Dissolved gas-in-dielectric fluid” would result in confusion. Similar points of confusion would result elsewhere. If there are specific locations where “dielectric fluid” is a more appropriate term, we can make case-by-case changes.

2) Table 1: Add a disclaimer to the effect of “Table is not all inclusive. Additional details of signals discussed in section 5”.

Change implemented.

3) Table 1: Replace “Line currents” with “excitation current”. David Harris can provide further clarification if needed.

Change implemented.

4) Table 1: Add Components of LTC and Tank per recommendation from Gary Hoffman. This will make the table consistent with other sections.

Table revised to be consistent with other sections. Redundant information was removed and references made to other tables within the document where appropriate.

5) Section 4.4 Bushings: “need volunteer”

The section was rewritten.

6) Table 2: “Increase in sum of currents” is an interpretation and it should only state the measured signal. Recommended wording was “Sum of currents”

Change implemented.

7) Table 3: LTC failure modes missing: Prodipto Gosh and David Harris to contribute.

Changes implemented.

8) 4.5.2.3: does not apply to spring design.

That this is explained in the first paragraph of 4.5.2.3. No change was made.

9) 5.3 Moisture in oil: Proposed text was distributed.

Section was rewritten.

10) 5.5 Dynamic rating (dynamic loading) text can be added by borrowing text from C57.140 (life extension guide).

In reviewing C57.140, there is no relevant definition for dynamic rating calculations. This topic was already addressed in section 7.4.2 of this guide. This section was expanded to address this concern.

11) 5.8 PF: Should reference on-line systems for PF.
Section 5.8 describes PF of the transformer. The annex describes PF of the bushings. A reference to the bushing section may create more confusion. No change to the text.

12) 6.3 where concerns over grounding is mentioned. Should reference IEEE Std C37.90.1
The section was rewritten.

13) Table 6: missing content
The table was completed.

14) Figure 7, Table 7, Table 8, Table 9, Table 10 and figure 8: Content lost during document transfer. Need to recopy the original figures.
The content was fixed.

15) 7.3.1: Catastrophic statistics to be reviewed and figures adjusted accordingly.
The probability of having a catastrophic transformer failure was revised to 1%.