Subject: IEEE C57.104, 2010 Spring meeting

Reference: Guide for the interpretation of gases generated in oil-immersed transformers, std C57.104.2008

To all C57.104 WG members and guests

At the Fall meeting (Toronto), a series of propositions, resulting from the various TF work performed last year, has be presented for discussion and evaluation.

Some of these propositions could not be debated due to lack of time. They are presented here and we plan to debate them at the upcoming Spring session in San Diego.

There is also a discussion forum on the IEEE online communities site dedicated to the C57.104. All active members have received an invitation earlier this year (March 9) I encourage you to visit and participate to the forum in preparation to the meeting.

http://c57104wg.oc.ieee.org/overview

Note: you need to register to access the site.

Proposition 9, 10 and 11 refer to section 6.5.2 "Determining the operation procedure and sampling interval from the TDCG levels and generating rates in the oil" and Table 3 "Action based on TDCG"

9- It is proposed to recommend the installation of on-line monitoring to replace high frequency sampling (e.g., < weekly) or for transformers considered dangerous (zoned).

10- It is proposed to add a safety warning for work performed on potentially faulty transformers, as indicated by DGA interpretation.

11- It is proposed to modify Table 3 ("actions based on TDCG") to include individual gas rates (as defined in the new Table) and concentrations (from Table 1)

Proposition 12 and 13 refer to section 6.6 “Evaluation of possible fault type by the key gas method” and 6.7 “Evaluation of possible fault type by analysis of the separate combustible gases generated”

12- It is proposed to use the following diagnostic methods: Key gas, Rogers, Duval Triangle 1 and IEC 60599 (section 5.2 and 5.3). All other methods, existing in the guide or proposed, should be in the annex section (Informative) (e.g., Doernenburg, Duval Triangles 4 and 5 for low temperature faults…)

13- It is proposed to add a section on the limitations of the various DGA analysis and diagnosis methods.

Proposition 14 refer to section 7 “Instrument for detecting and determining the amount of combustible gas present”

14- It is proposed to delete the description of gas monitors in section 7, and to replace the monitor description with information relevant to the interpretation of monitor readings, when this interpretation is different from interpretation of laboratory results. (example: computing rate of change, taking into account detection limits, comparing results from two different sources…).

Proposition 15 refer to Annex A “Bibliography”

15- Two possibilities are proposed for the bibliography. Please indicate your selection:

Proposition A: Extended bibliography containing all references, historical, up to date research and practical application (such as other standard) (probably 150 to 200 entries)

Proposition B: Only up to date bibliography, standard and application oriented reference (probably less than 50 entries)

Note: the actual bibliography contains 176 entries, from 1928 to 1989, several of which could no longer be retrieved.