

TF Next Revision of C57.104 “Guide for the Interpretation of Gases Generated in Mineral Oil-Immersed Transformers”

Spring 2021 Meeting, WWW, April 26, 2021, 15H45 to 17H00. Session 4

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Agenda

1. Welcome & Introductions
2. Patent Call
3. Copyright call
4. Presentation of Agenda
5. Approval of Fall 2020 meeting minutes
6. Review of TF Scope and Objectives
7. Presentations
 - Zack Daper: "A method to evaluate DGA interpretation efficiency"
 - Claude Beauchemin: "Summary of CIGRE WG D1/A2.77 Activities"
 - Running list of corrections: update
8. Discussion
9. Old business
10. Adjourn

6. Review of TF Scope and Objectives

"The procedure to interpret DGA results presented in this guide is, by its very nature, a work in progress. This guide represents the best interpretation of the data available at the time of redaction, based on the experience of the experts contributing to this document. The industry should strive to continue to upgrade and improve it."

Task Force Objective

Evaluate the way forward after the publication of C57.104-2019 "Guide for the interpretation of gases generated in mineral oil transformer".

Task Force Scope

- 1- Capture lessons learned
- 2- Review the list of proposed revision topics from C57.104 (annex A).
- 3- Propose additional revision topics of interest.
- 4- Evaluate and prioritize each topic.
- 5- Evaluate the best manner to address each topic in the next revision.
- 6- Propose a working plan to address those topics. It could be to propose one, or several, new PAR for revision or for independent work.

Task Force possible “ToDo” (from Annex A)

- 1- Reduce the number of DGA marked as “Investigate” without losing the capability to detect abnormal situations.
- 2- Obtain a better correlation between DGA results and actual fault detection and identification (When following the guide protocol).
- 3- Adapt DGA interpretation to specific applications, such as windfarm, network, GSU, distribution.
- 4- Build an industry wide database of DGA, including all pertinent transformer information, to support the future evolution of this guide. Enlist the help of IEEE PES to build the appropriate infrastructure (legal, hardware, protection and usage protocol) needed to acquire, clean and store this data.
- 5- Adapt application of DGA interpretation to the use of on-line DGA monitors, specifically regarding the noise level impact (Table 3) and rate of change calculations (Table 4).

Task Force possible “ToDo” (Other)

- 6- Create data handling protocol in terms of data collection, cleaning, encryption, storage, maintenance, sharing, distribution and analysis, including data analysis code.
- 7- Define a “Standard” data form for data collection.
- 8- Create and maintain a running list of corrections and improvements for next revision.

7. Presentations:

"Evaluation of DGA interpretation efficiency" by Zack Draper

CIGRE WG D1/A2.77 "Liquid Tests for Electrical Equipment", a review of activities to date by Claude Beauchemin

Running list of corrections: update

8. Discussion: Any Suggestions? Additions? Other business?

9. Any old business?

10. Adjourn