

Study Committee A2

Working Group Form

WG N°: A2.37

Name of convenor: Stefan Tenbohlen/DE

Title of working group: Transformer Reliability Survey

Context

In 1983, CIGRE WG 12.05 published a report summarizing the results of their analysis of transformers up to 20 years of age that failed in the period 1968 to 1978. The authors reported of difficulties to compile and analyze the data of the survey due to incomplete or incompatible responses. Ten years later, WG 12.14 tried to upgrade this survey but was unsuccessful due to similar reasons. In the 2000's SCA2 started a new WG based on the work done in SCA3 on reliability surveys. The work of SCA3 was stopped due to the new international context where the restriction to data access was becoming problematic. SCA2 also started an AG on Reliability and a paper on that subject was presented at the CIGRE 2006 session. The 1983 survey, in which 13 countries from 3 different continents took part, is still considered as the only existing international survey on transformer reliability. Since then many countries have published reliability surveys locally with some being published annually. However, this knowledge is not shared amongst the international community where most benefit can be drawn.

Scope and aim

The aim would be to prepare a brochure describing international transformer reliability survey practices A new survey will not be conducted but data and information already in the public domain and usually available only locally, will be presented in a comprehensive manner. The differences in contexts like failure definition, transformer usage and transformer specification, that may influence survey results will be discussed and best practices identified. Finally, where applicable, the brochure should include recommendations to improve the compatibility of the data compiled in the different countries and propose a uniform way of collecting, compiling and presenting data.

Specifically, the WG will:

- Review all existing national surveys and study different practices (data collection, compilation, etc.)
- Discuss the differences and identify best practices
- Compile and present the information available in these national survey reports
- Make recommendations to improve the situation

Deliverables/time schedule

- January 2008: Starting of the Working Group
- End of 2009 : Interim Report
- End of 2011 : Final Report

Papers issued: TB, Summary in Electra

Approved by TC chairman: Klaus Fröhlich Date: 14/01/2008