



Study Committee A2

Working Group Form

WG N°: A2.34

Name of convenor: Claude Rajotte/CA

Title of working group: Guide for Transformer Maintenance

Context

In the mid eighties and in the nineties, transformer users were asked to optimize transformer maintenance activities in order to reduce maintenance cost. Nowadays, in the context of deregulation, transformer reliability has become the most important preoccupation for transformer users. Maintenance, availability and reliability are intimately related and a transformer user has to specify a level of maintenance that will insure acceptable level of transformer reliability in his particular context.

Scope and aim

The aim is to prepare a guide for transformer maintenance that will help transformer users to define and apply best practices for transformer maintenance. The intent is to include transformers rated 69 kV and above, and larger than 25 MVA. The guide should also consider different power transformer usages and environments. The activity is partly a response on a request of IEC TC 14. The Scope shall be accomplished in the three following parts:

Part I

The objective is to define a best practices list of periodic actions applied in service or with outage, for checking and testing in order to evaluate transformers condition. A suggested periodicity for the various actions will be included for different transformer usages and environments. Acceptance criteria, norms and standards will be referenced where appropriate. It may also included parameters tracked by monitoring system to evaluate condition.

Part II

This Part will address advanced maintenance activities, usually referred as condition based maintenance, such as oil additives, oil filtering, oil regeneration, and insulation drying. Other "state of the art" issues may be included as deemed appropriate. Risks and consequences of not applying these advanced maintenance activities when required will also be defined and discussed.

Part III

This part will deal with the human and material aspects of transformer maintenance. This may include maintenance planning, maintenance tasks tracking, maintenance resources, cost references, level of competences required for different tasks, training, on-site repair, etc.

Deliverables/time schedule

- January 2007: Starting of the Working Group
- End of 2008 : Interim Report
- Paris Session of 2010 : Final Report

Papers issued:TB, Summary in Electra

Approved by TC chairman: Klaus Fröhlich

Date: Nov. 22nd, 2006